SplitSecond™

Split-center Door

This manual to remain with the door:
Date Installed:_____

ISO 9001 CERTIFIED

RITE-HITE® DOORS
The Leading Edge In Door Safety.

MADE IN THE U.S.A.

This Manual Covers All Doors Shipped to Date.

PRINTED IN U.S.A.
email: printshop@RITEHITE.com

Publication No. SplitSecondB
NOVEMBER 2010

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NOTICE TO USER

Our mission is to "Improve Industrial Safety, Security and Productivity Worldwide Through Quality and Innovation."

Thank you for purchasing the SplitSecond™ door from RITE-HITE DOORS, INC. The SplitSecond™ door is a simple, reliable, Split-center design that has a small footprint, all the while helping to keep different atmospheres separate.

This manual should be thoroughly read and understood before beginning the installation, operation or servicing of this door. This owners manual MUST be stored near the door.
Complete final checklist prior to leaving site.

RITE-HITE DOORS, INC. reserves the right to modify the electrical and architectural drawings in this manual as well as the actual parts used on this product are subject to manufacturing changes and may be different than shown in this manual. Due to unique circumstances with varying requirements, separate prints may be included with the unit.

The information contained in this manual will allow you to operate and maintain the door in a manner which will insure maximum life and trouble free operation. The serial # for your door is located on a label on the side of the control box and sideframe.

Your local RITE-HITE DOORS, INC. Representative provides the Planned Maintenance Program (P.M.P.) which can be fitted to your specific operation. If any procedures for the installation, operation or maintenance of the SplitSecond™ have been left out of this manual or are not complete, or have suggestions, contact RITE-HITE DOORS, INC. Technical Support at 1-563-589-2722.

RITE-HITE DOORS, INC. are covered by one or more of the following U.S. patents, including patents applied for, pending, or issued: 5,025,846, 5,143,137, 5,203,175, 5,329,781, 5,353,859, 5,392,836, 5,450,890, 5,542,463, 5,579,820, 5,601,134, 5,638,883, 5,655,591, 5,730,197, 5,743,317, 5,794,678, 5,887,385, 5,915,448, 5,944,086, 5,957,187, 6,042,158, 6,089,305, 6,098,695, 6,145,571, 6,148,897, 6,192,960, 6,321,822, 6,325,195, 6,330,763, 6,352,097, 6,360,487, 6,574,832, 6,598,648, 6,612,357, 6,615,898, 6,659,158

SPECIAL FEATURES

- i-COMM™ Universal Controller
- Heavy-Duty Industrial Materials
- Obstruction Sensing System
- Immediate Full Height Viewing
- Pharmaceutical Applications
- Optional Stainless Steel Components
- Adjustable Speeds
- Replaceable Seals
- Large Vision Area
- Touch-pad Controls
- FDA and cGMP compliant

RECOMMENDED SERVICE PARTS

Kit, SplitSecond Spare Parts Kit	53700722 (1)
Encoder (=/> 11/1/2010)	53700792 (1)
Encoder (< 11/1/2010)	53700793 (1)
Fuse, .5 Amp, 600V, Time Delay (400-575V)	51000001 (4)
Fuse, 1 Amp, 250V, Time Delay	51000002 (2)
Fuse, 2 Amp, 250V, Time Delay	51000005 (2)
Fuse,1 Amp,600V,CC,Time Delay (208-230V)	51000023 (4)
Fuse, 10 Amp, 600V, CC, KLDR (400-575V)	51000033 (6)
Fuse, 15 Amp, 600V, KLDR (208-230V)	51000051 (6)
Fuse, 6 Amp, 600V, CC, KLDR (400-575V)	51000055 (6)
Fuse, 20 Amp, 600V, KLDR (220V)	51000077 (6)
Sideframe Latch	54150023 (1)
Photoeye Emitter (Non-Drive Interior)	63900051 (1)
Photoeye Receiver (Drive Interior)	63900052 (1)
Photoeye Emitter (Non-Drive Exterior)	63900053 (1)
Photoeye Receiver (Drive Exterior)	63900054 (1)
Sheer Pin	67850161 (10)

Mounting hardware provided by others.

INSTALLATION TOOLS REQUIRED

- 25' Tape measure
- 6' Carpenters level
- Scissors Lift
- Plumb Bob
- Hammer Drill
- Drill Bits
- 5/16" Nut Driver
- Straight Edge
- Electrical Tape
- Hydro level
- Ladder (6'-8')
- 7/16",1/2",9/16", 3/4" Socket/wrench
- "C" Clamps
- Drill (cordless or electric)
- Phillips Bit for Drill
- Allen Wrench Set (1.5mm, 1/4", 3/32", 5/32")
- Wire Strippers (Small-22 AWG)
- Small Straight/Phillips Screwdrivers

WARRANTY

RITE-HITE DOORS, INC. warrants that its SplitSecond™ door including electrical components, will be free from defects in design, materials and workmanship for a period of one (1) year from the date of shipment. RITE-HITE DOORS, INC. warrants that the curtain fabric only, shall be free from defects in material for a period of five (5) years. The curtain fabric warranty covers material failure under normal wear conditions; it does not cover labor, vision wear, edging or damage incurred from abuse, misuse or impact. Damage incurred from washing or spraying of the door with water and/or chemicals is not covered under warranty. Vision, fuses, bulbs and seals are wear items, and not considered to be covered by warranty. All claims for breach of this warranty must be made within thirty (30) days after the defect is or can, with reasonable care, be discovered to be entitled to the benefits of this warranty, the products must have been properly installed, maintained, operated within their rated capacities, and not otherwise abused. Periodic lubrication and adjustment is the sole responsibility of the owner. This warranty is RITE-HITE DOORS, INC. exclusive warranty. RITE-HITE DOORS, INC. expressly disclaims all implied warranties including the implied warranties of merchantability and fitness. Non-standard RITE-HITE DOORS, INC. warranties, if any, must be specified by RITE-HITE DOORS, INC. in writing.

In the event of any defects covered by this warranty, RITE-HITE DOORS, INC. will remedy such defects by repairing or replacing any defective equipment or parts, bearing all of the costs for parts, labor, and transportation based on the warranty policy. This shall be the exclusive remedy for all claims whether based on contract negligence or strict liability. Neither RITE-HITE DOORS, INC. any other manufacturer whose products are the subject of this transaction, nor any RITE-HITE DOORS, INC. representative, shall in any event be liable for any loss or use of any equipment or incidental or consequential damages of any kind whether for breach of warranty, negligence, or strict liability. The application of a manufacturer's specifications to a particular job is the responsibility of the purchaser. RITE-HITE DOORS, INC. has the right to repair prior to replacing the item in question, if the repair is deemed unrepairable, then the item will be replaced.

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CHAPTER 1 - GETTING STARTED

DANGER !!!

When working with electrical or electronic controls, make sure that the power source has been locked out and tagged according to OSHA regulations and approved local electrical codes.

CAUTION !!!

Make sure to barricade the door opening on both sides to prevent unauthorized use until the door has been completely installed.

It is important to verify the following basic information before starting with the installation.

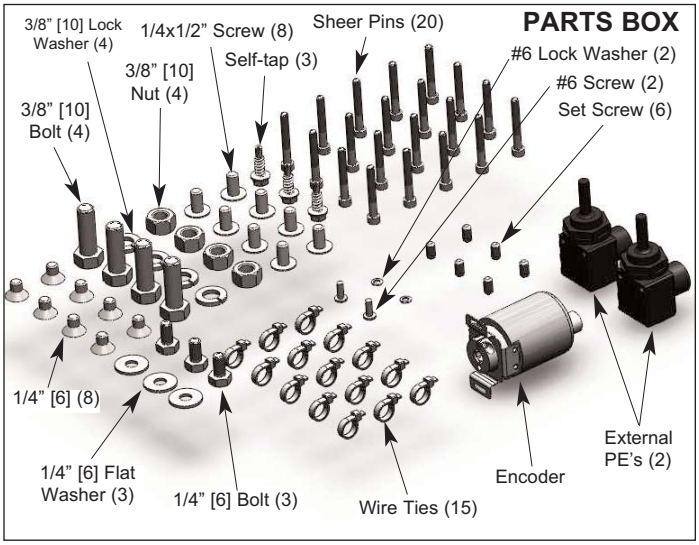
TO PREVENT DAMAGE TO CONTENTS, STORE DRY BETWEEN 40° AND 80° F.

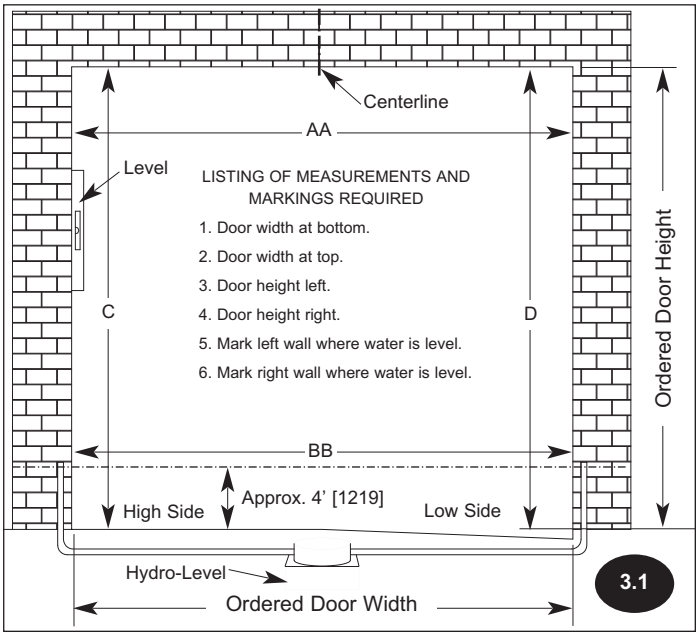
1. Alternate dimensions in brackets are in [millimeters].
2. Make sure that you are working at the correct location and that you have any required work permits.
3. Inspect the site to make sure that there are no overhead obstructions (sprinkler pipes, HVAC systems, electrical supply lines, etc.) that might interfere with the installation.
4. Detour material handling equipment during the installation.
5. Make sure that the electrician is ready to bring the correct electrical power supply to the door control box.
6. Make sure that the electrical power can be shut off without interfering with other plant operations.
7. Move the door crate as close to the opening as possible.
8. Measure the overall width of the door opening near the floor and the header (Dimensions A and B), and the height of the door opening at the left and right-hand sides (Dimensions C and D), ***Figure 3.1.***
9. Using a 6' [1829] carpenter's level, verify that the door jambs and header are plumb and perpendicular.
10. These dimensions should be within ± 1/2" [13] of the dimensions listed on the Serial Number label. If the measurements do not agree, STOP!
    Contact your RITE-HITE DOORS, INC. representative.
11. Using a hydro level, determine if the floor is level, ***Figure 3.1.*** If the floor is not level to within 1/8" [3], mark the wall where the level point is indicated. The measurement between the level mark and the floor is the amount of shimming that needs to be done under the sideframe that will be located on the "Low Side" (greatest measurement) of the door opening.
12. Place a mark at the top of the jamb on the center of the opening.
13. For space clearances and requirements, see Architectural Drawings at the back of this book.
14. Install optional equipment after verifying door operation.

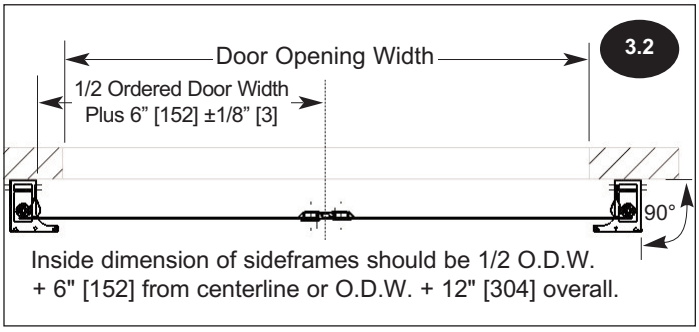
NOTE: ***Electrical prints included in the parts or control box, supersede any prints included in this owners manual on Pages 21-25. Always check for electrical prints.***

15. The installation instructions provided are based on mounting the sideframes and header individually on the wall. Another method of installation would be to fasten the header and the sideframes on the floor and raise as one unit.

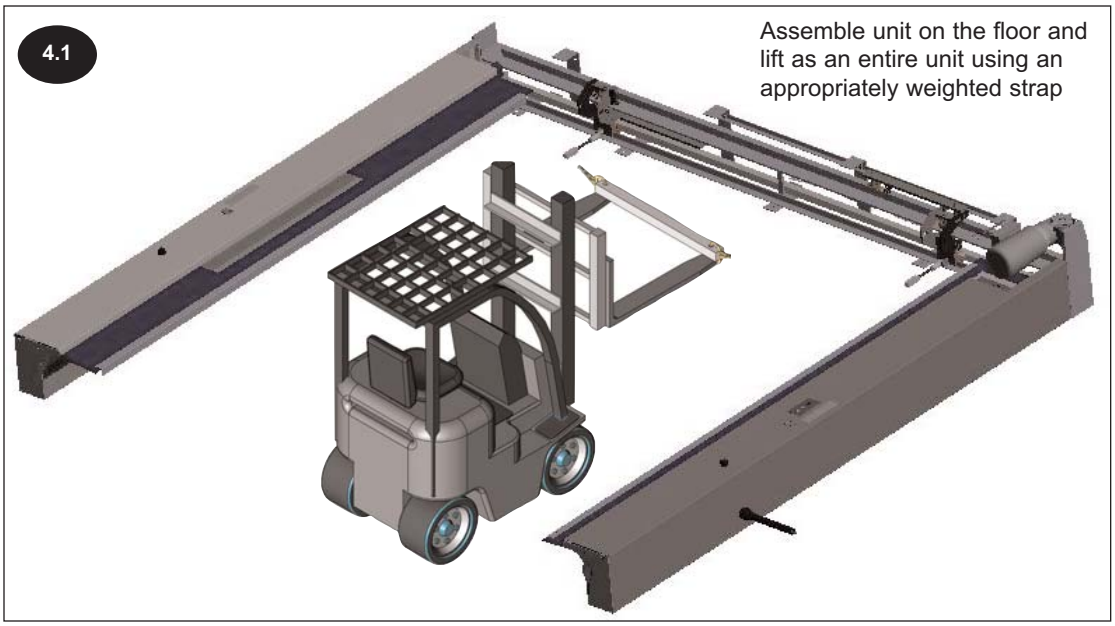
RECOMMENDED MOUNTING FASTENERS	
Wall	**Fastener**
Wood	3/8" [9] thru-bolt at middle and each end of header.
Mason	3/8" [9] thru-bolt or 3/8" [9] masonry anchor at middle and each end of header
Steel	At middle and each end of header. 1. 3/8" [9] thru-bolt. 2. 3/8" [9] drill and tap (material must be 5/16" [10] min.) 3. 3/8" [9] drive self tap/drill screws (1/4" – 14). [6] 4. Welding is not recommended.





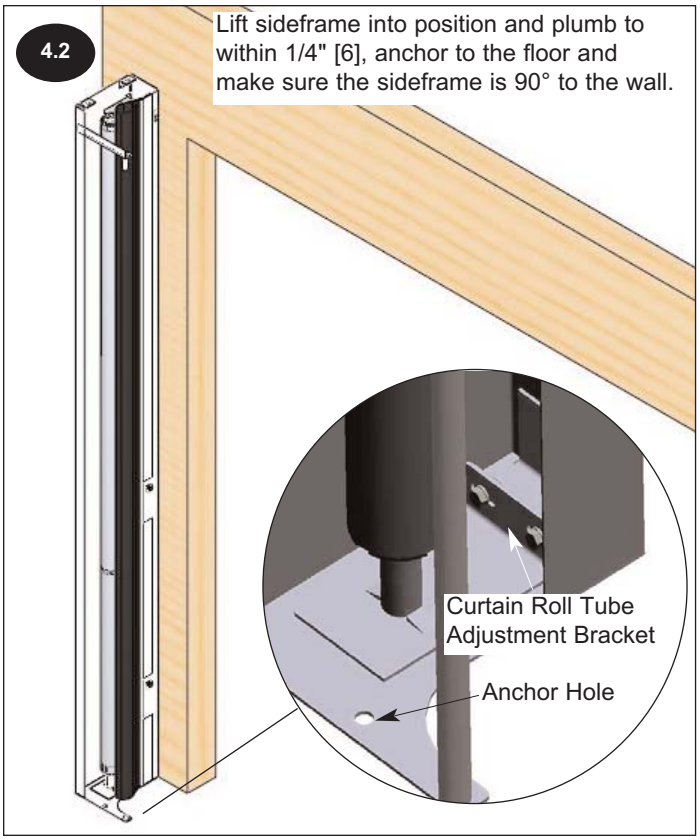


CHAPTER 2 - SIDEFRAME INSTALLATION



⚠ WARNING!!!

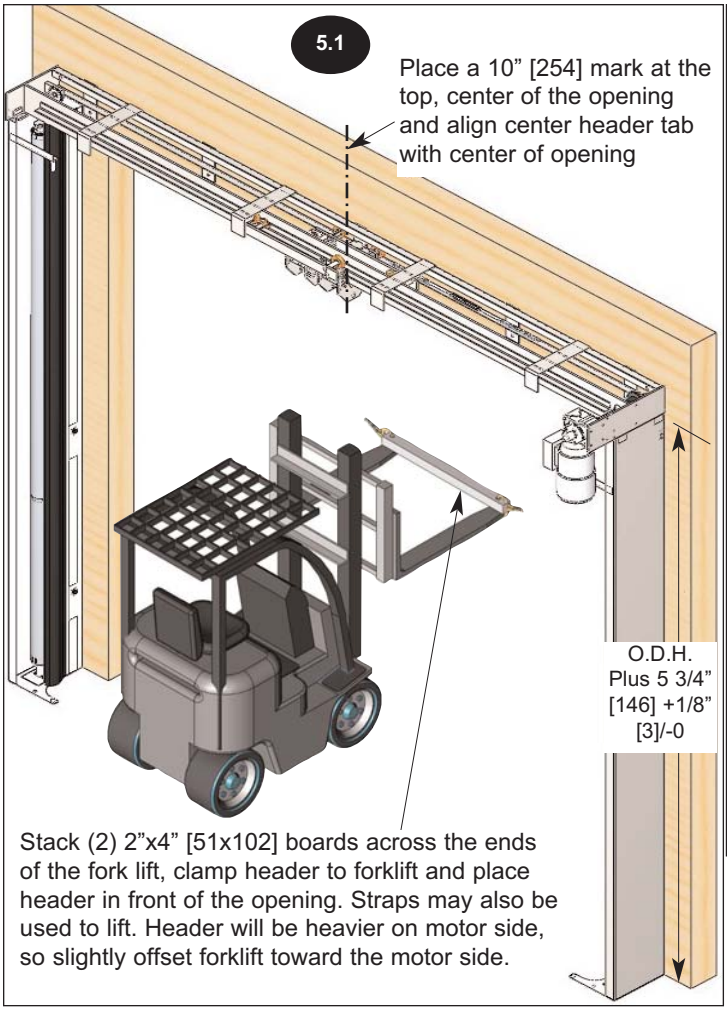
When lifting the sideframe, header or door assembly, DO NOT stand beneath, in front, or behind the unit. Stand only to the side.



CHAPTER 2 - HEADER INSTALLATION

5.1

Place a 10” [254] mark at the top, center of the opening and align center header tab with center of opening

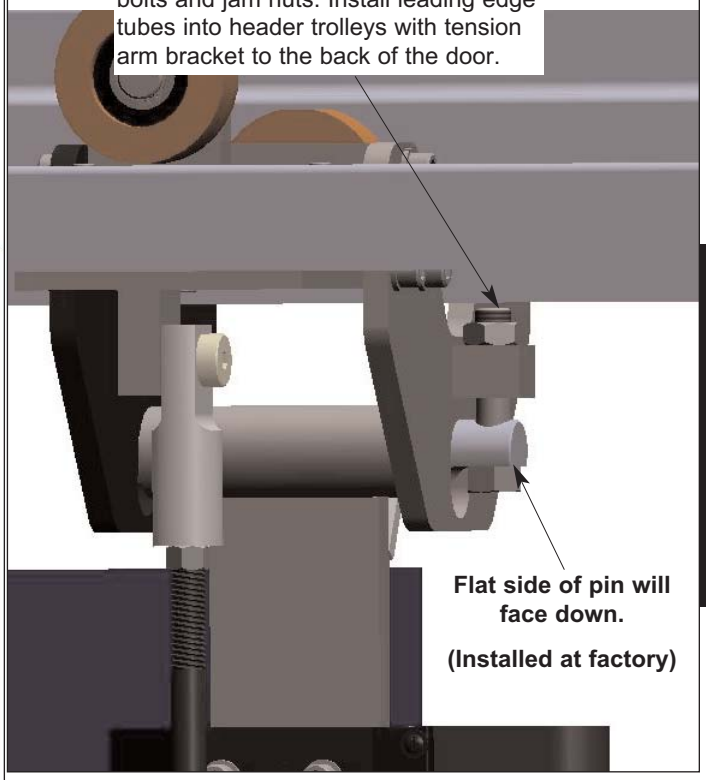


O.D.H. Plus 5 3/4” [146] +1/8” [3]/-0

Stack (2) 2”x4” [51x102] boards across the ends of the fork lift, clamp header to forklift and place header in front of the opening. Straps may also be used to lift. Header will be heavier on motor side, so slightly offset forklift toward the motor side.

5.3

Locate the leading edge arms, pivot pins and 1/2”x2 1/4” [13x57] hex head bolts and jam nuts. Install leading edge tubes into header trolleys with tension arm bracket to the back of the door.



Flat side of pin will face down.

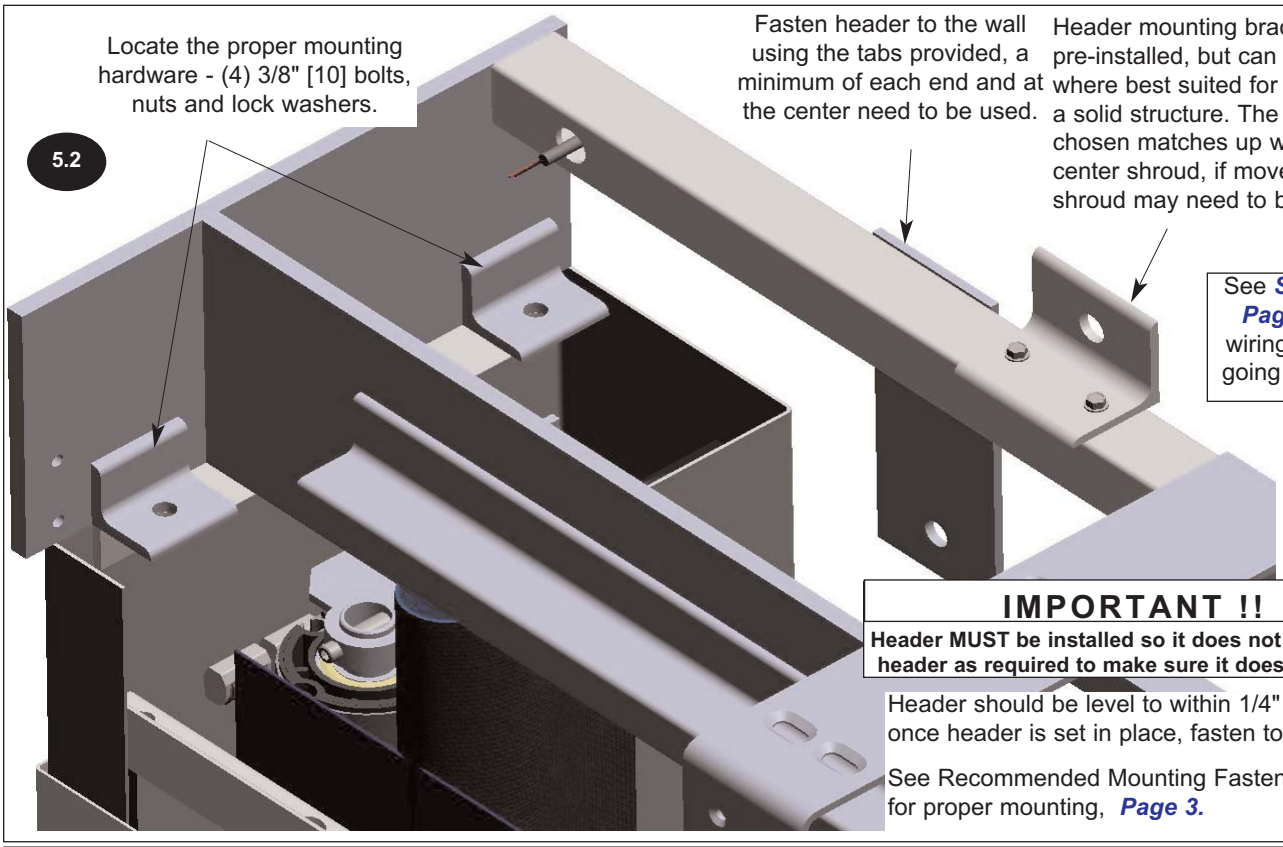
(Installed at factory)

5.2

Locate the proper mounting hardware - (4) 3/8" [10] bolts, nuts and lock washers.

Fasten header to the wall using the tabs provided, a minimum of each end and at the center need to be used.

Header mounting brackets are pre-installed, but can be moved where best suited for installing to a solid structure. The location chosen matches up with the center shroud, if moved, the shroud may need to be modified.



See ***Step 6.1, Page 6*** for wiring prior to going forward.

IMPORTANT !!

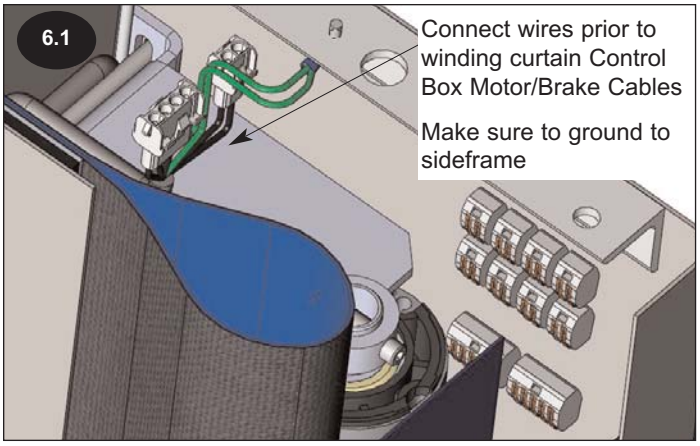
Header MUST be installed so it does not bow. Shim header as required to make sure it does not bend.

Header should be level to within 1/4" [6] and once header is set in place, fasten to the wall.

See Recommended Mounting Fastener Chart for proper mounting, ***Page 3.***

CHAPTER 2 - CURTAIN INSTALLATION

6.1



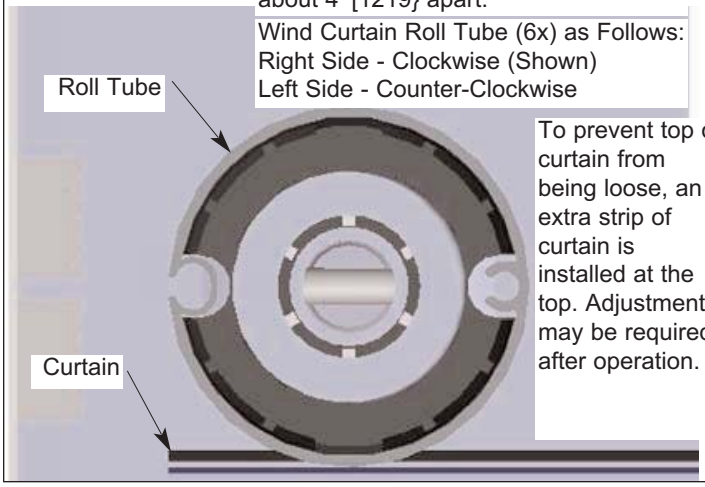
Connect wires prior to winding curtain Control Box Motor/Brake Cables

Make sure to ground to sideframe

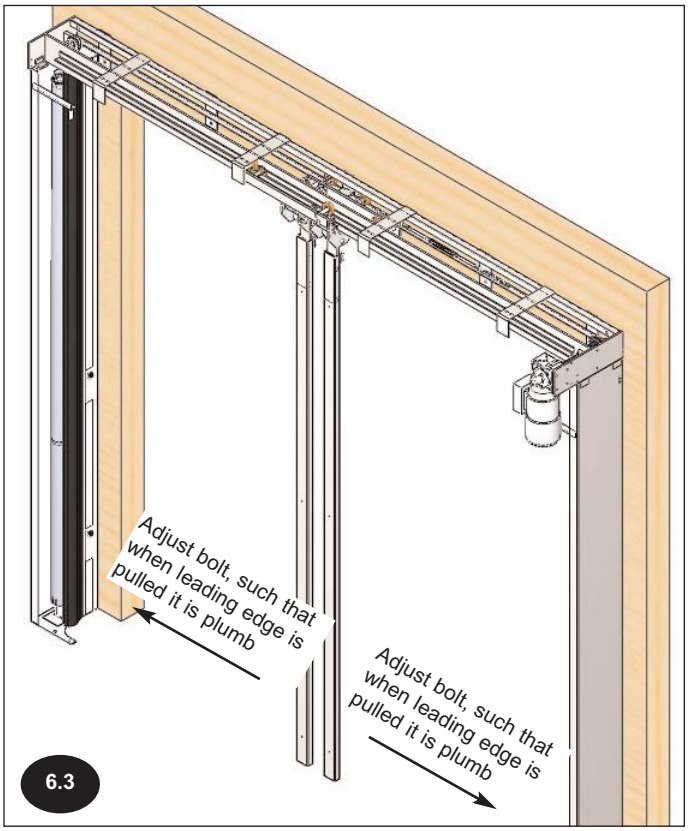
6.2

Manually release the brake and position leading edge arms so they are about 4' [1219} apart.

Wind Curtain Roll Tube (6x) as Follows:
Right Side - Clockwise (Shown)
Left Side - Counter-Clockwise



To prevent top of curtain from being loose, an extra strip of curtain is installed at the top. Adjustment may be required after operation.



6.3

6.4

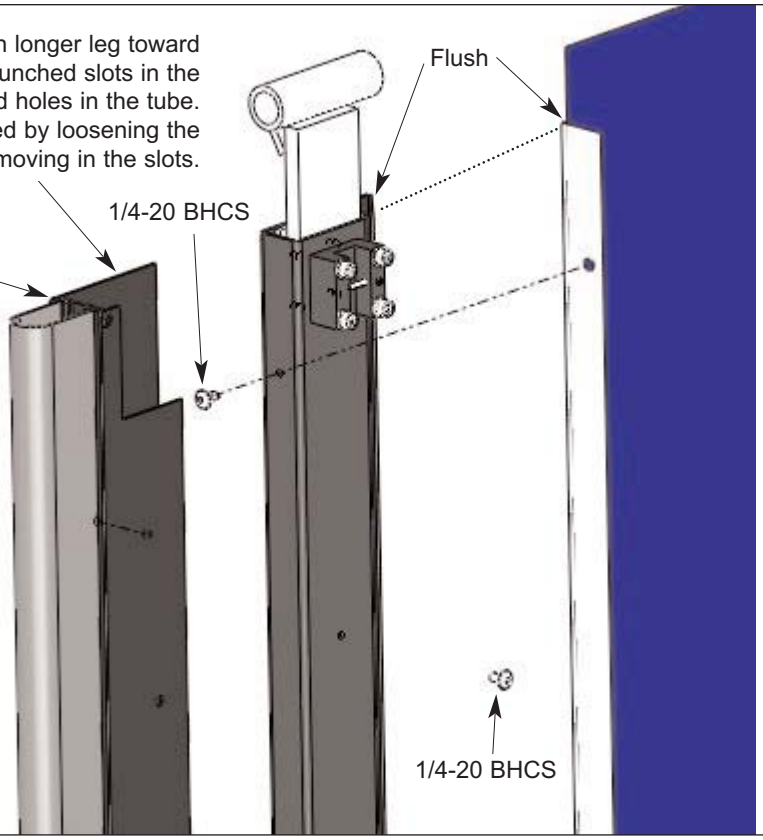
Attach nose seal cap with longer leg toward front. Line up the pre-punched slots in the leading edge with the tapped holes in the tube. Adjustment can be achieved by loosening the fasteners and moving in the slots.

At the top and bottom of the nose seal are two screws holding the rubber seal in place. To make adjustments, remove screws and either raise or stretch to lower and replace screws

Once six winds have been added, remove the strap securing the curtain to the roll tube.

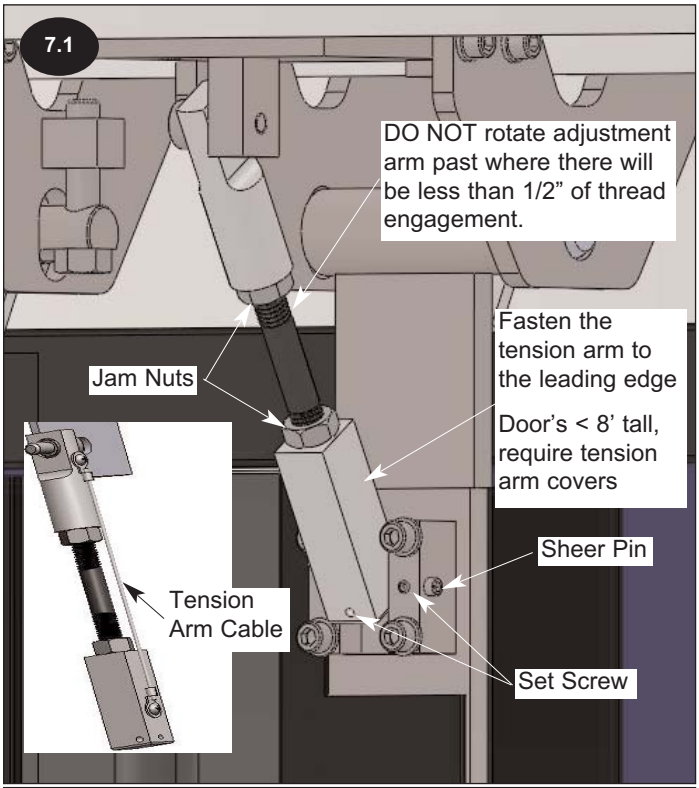
Pull the curtain out of the sideframe and past the leading edge arm to remove wrinkles from the curtain.

Clamp the aluminum angle at the end of the curtain to the leading edge tube and fasten using the tapped holes. Top of aluminum angle should be flush with top of leading edge tube.

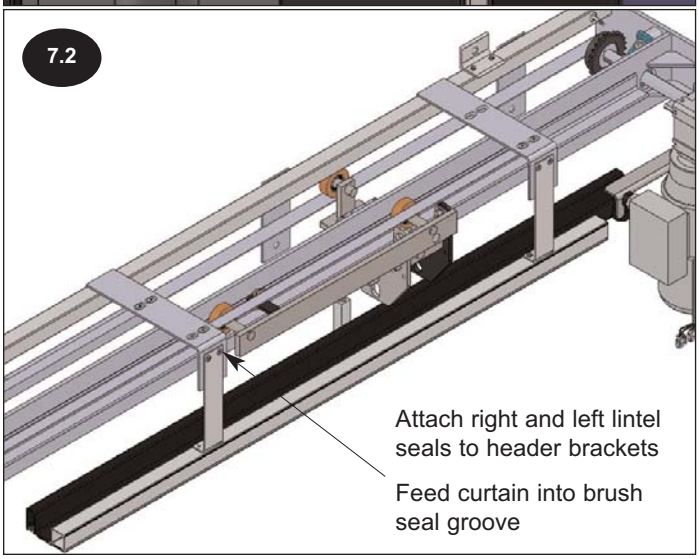


CHAPTER 2 - SEAL INSTALLATION

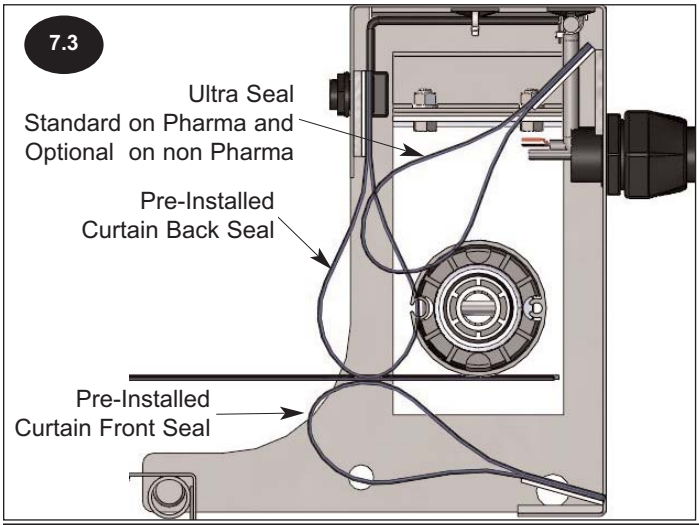
7.1



7.2

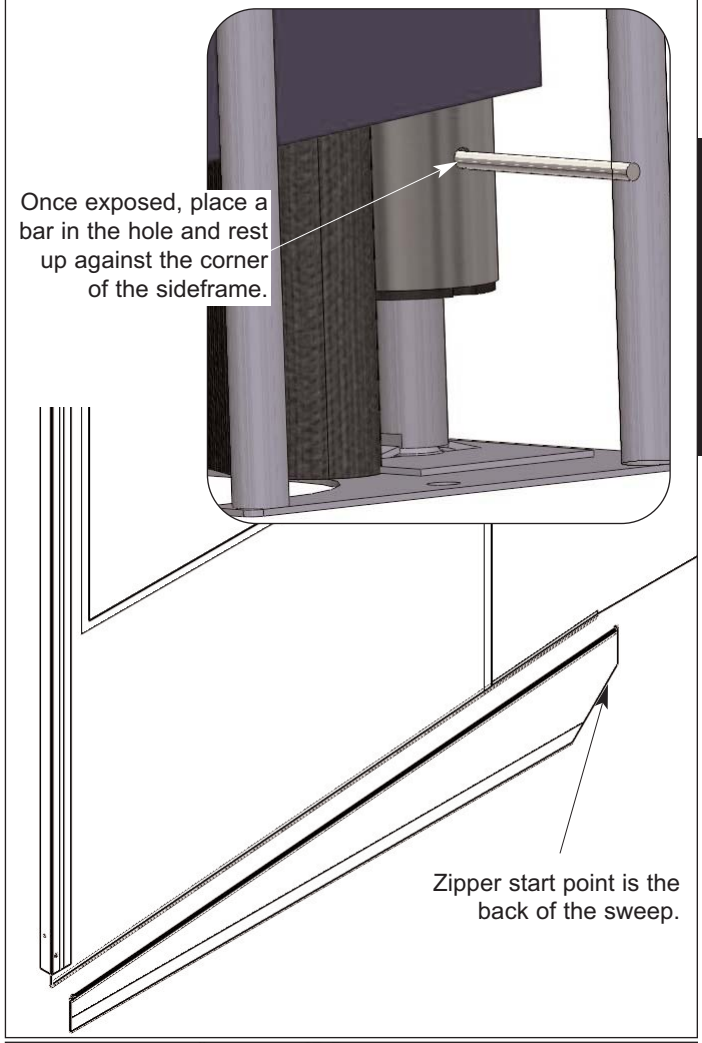


7.3

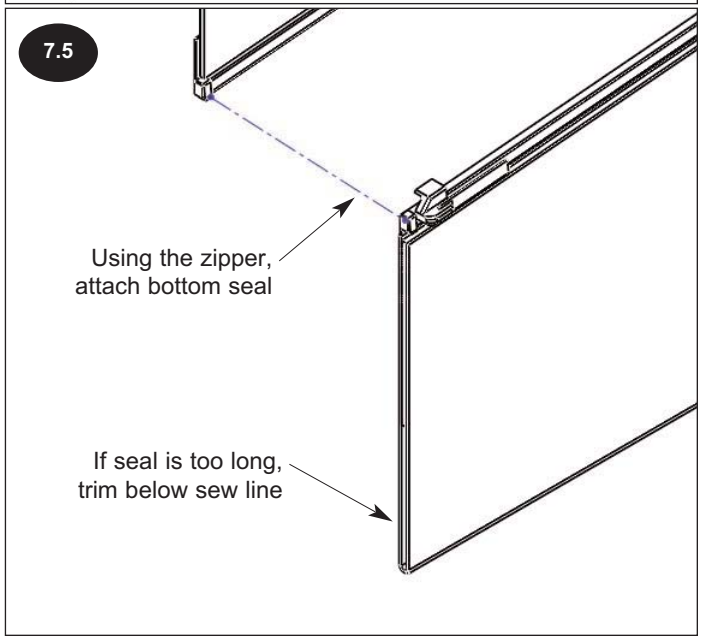


7.4 Only if optional removable seal was ordered.

Unwind curtain from the tube far enough to expose the aluminum tube at the bottom with the hole in it.

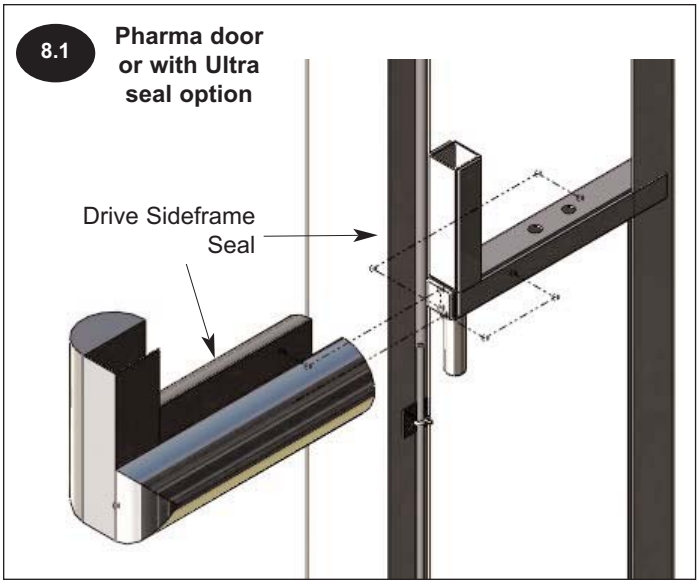


7.5

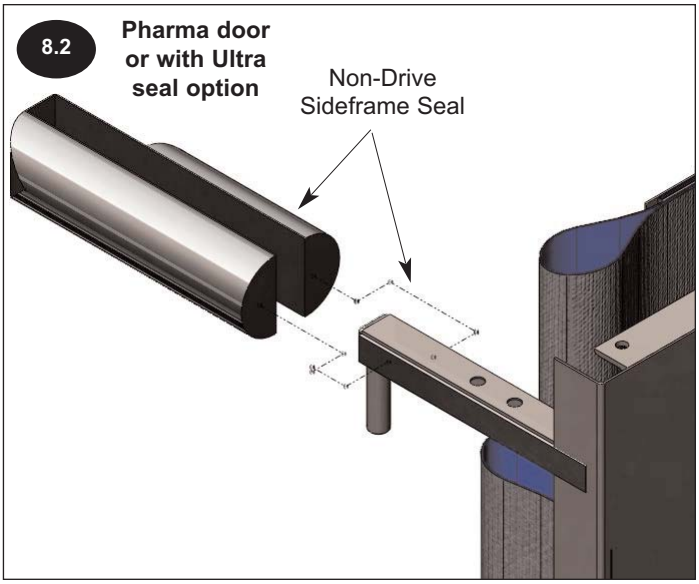


CHAPTER 2 - SIDEFRAME COVERS INSTALLATION

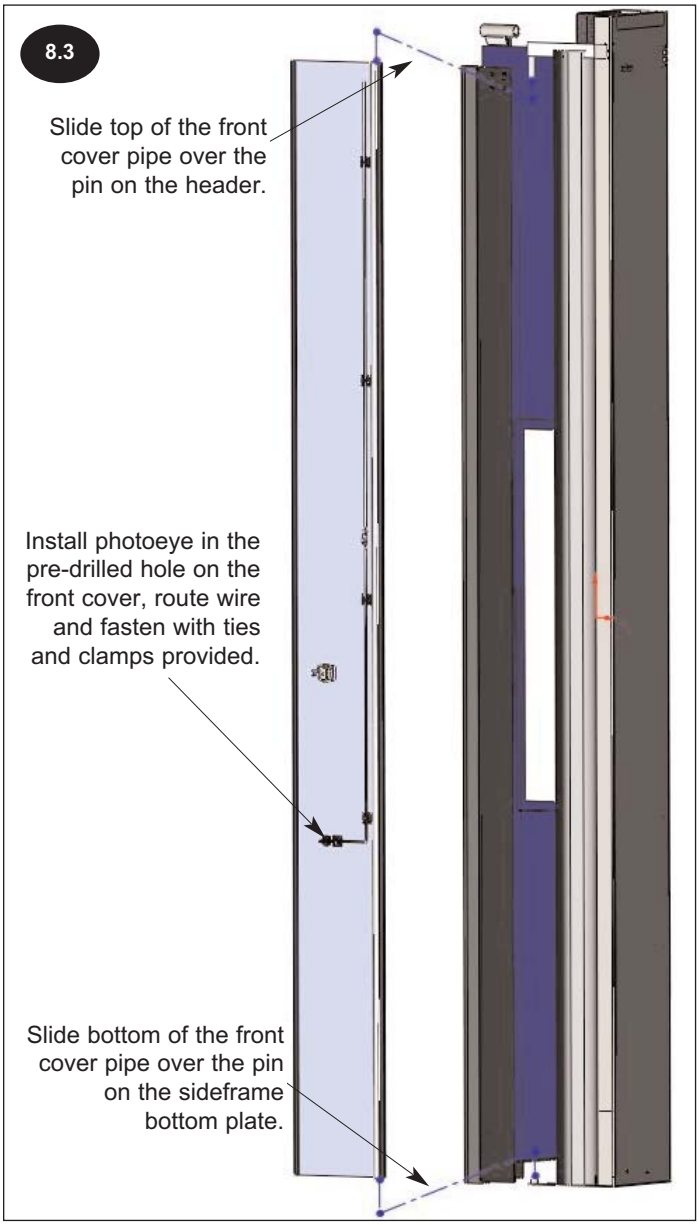
8.1 **Pharma door or with Ultra seal option**



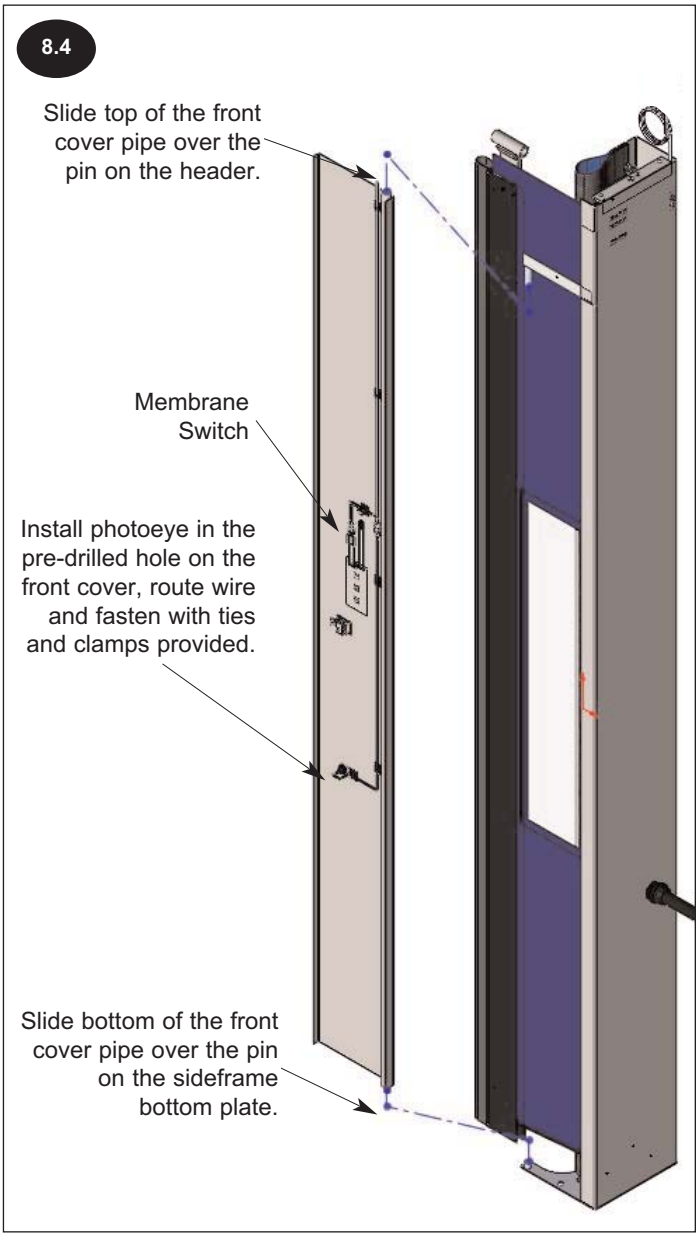
8.2 **Pharma door or with Ultra seal option**



8.3



8.4

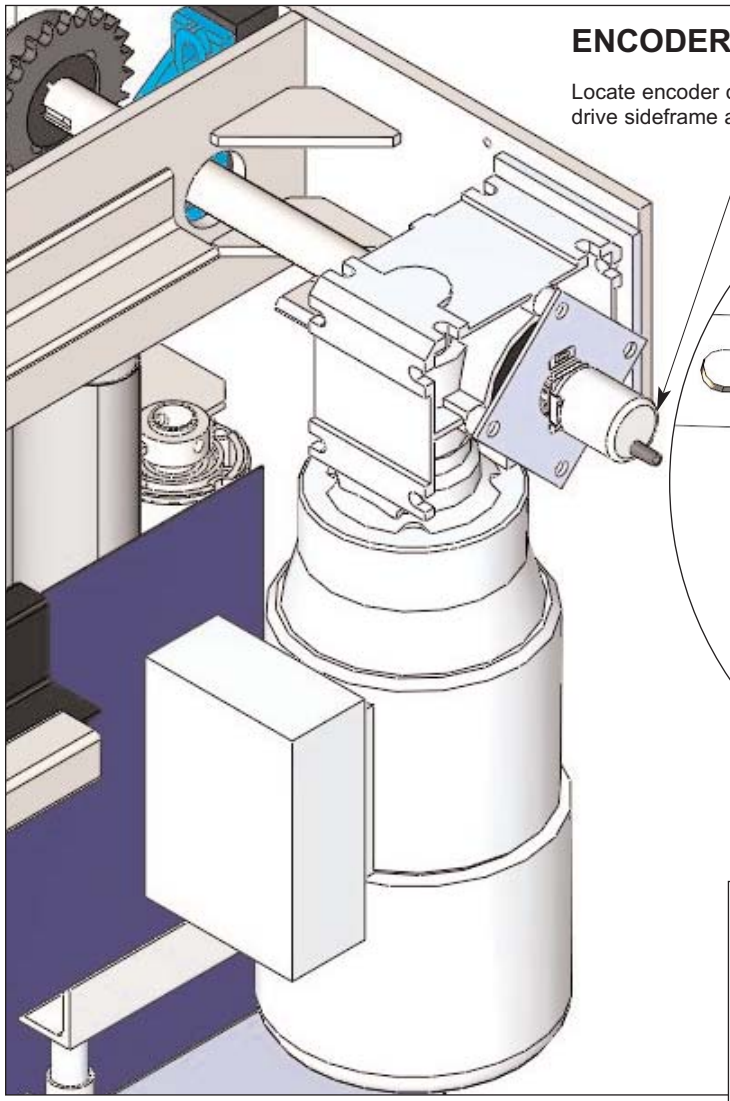


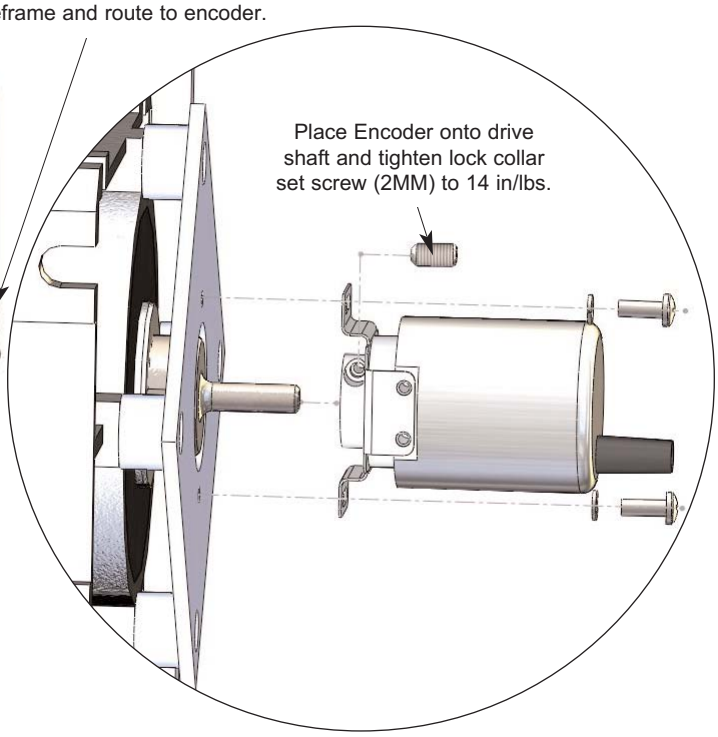
CHAPTER 2 - ENCODER INSTALLATION

ENCODER INSTALLATION

9.1

Locate encoder cable at the top of the drive sideframe and route to encoder.





9.3

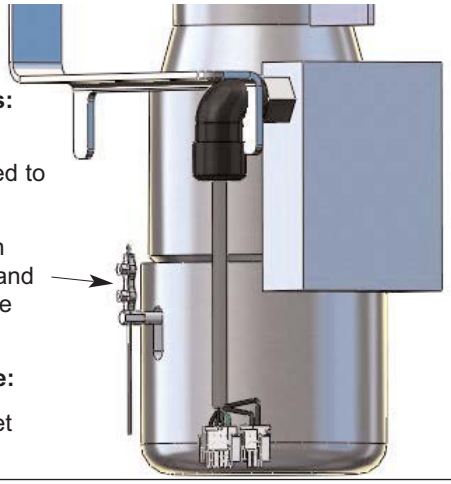
Steel Sideframes:

Uncoil steel cable that is pre-attached to the brake handle.

Route cable down inside sideframe and attach to the brake release handle.

Fabric Sideframe:

Uncoil cord and let hang.

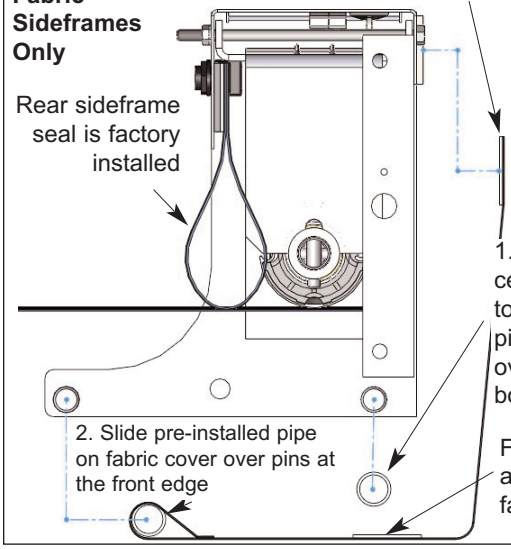


9.2

Fabric Sideframes Only

Rear sideframe seal is factory installed

3. Stretch fabric cover around center pipe, around to the back and attach fabric cover to sideframe using hook and loop fastener



1. Locate the center pipe, place top end around pin, lift and place over pin at the bottom

2. Slide pre-installed pipe on fabric cover over pins at the front edge

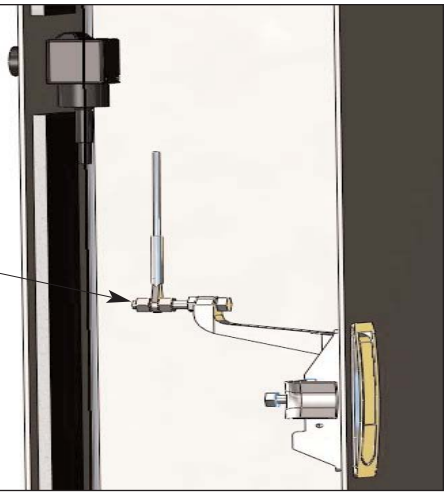
Front seal is attached to the fabric sideframe

9.4

Attach cable end to brake release arm.

To release brake, lift up on brake release handle.

If handle does not release brake, adjust cable at the top, by loosening bolts and adjusting cable.



CHAPTER 3 - ELECTRICAL INSTALLATION

IMPORTANT!!!

To reduce risk of injury or death, an earth ground connection MUST BE made to the green/yellow control box ground terminal. If metal conduit is used as the ground connector, an N.E.C. approved ground bushing and green/yellow wire MUST BE properly attached to the conduit for connection to the ground terminal.

IMPORTANT!!!

A qualified electrician should install the wiring in accordance with local and national electrical codes. Use lockout and tagout procedures to avoid injury.

IMPORTANT!!!

In applications where a conduit passes from a warm to cold temperature zone, the conduit must be plugged with epoxy. This will help prevent condensation from forming in the conduit. For more information, see Section 300-7a of the National Electric Code.

⚠ CAUTION !!!

When drilling holes in the box, DO NOT turn control box upside down or go too deeply into the box. Damage or debris may fall into electrical components causing failure or severe equipment damage.

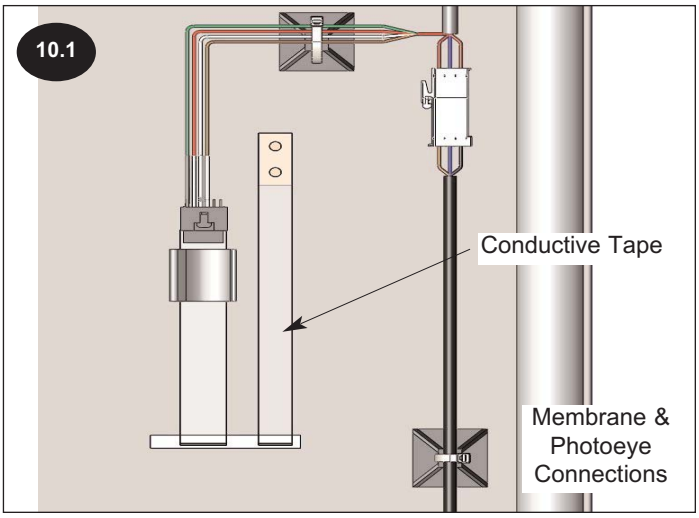
1. It is the responsibility of the end user to provide electrical service up to the control box with proper branch service protection and an approved means of disconnect.
2. All control boxes should be mounted on the warm side regardless of door mount side.
3. The incoming power terminals in the control box will not accommodate wires larger than 12AWG. 20 or 30 Amp service may be required for cable runs longer than 300'.
4. The control box is provided with class CC protective fusing for the incoming power.

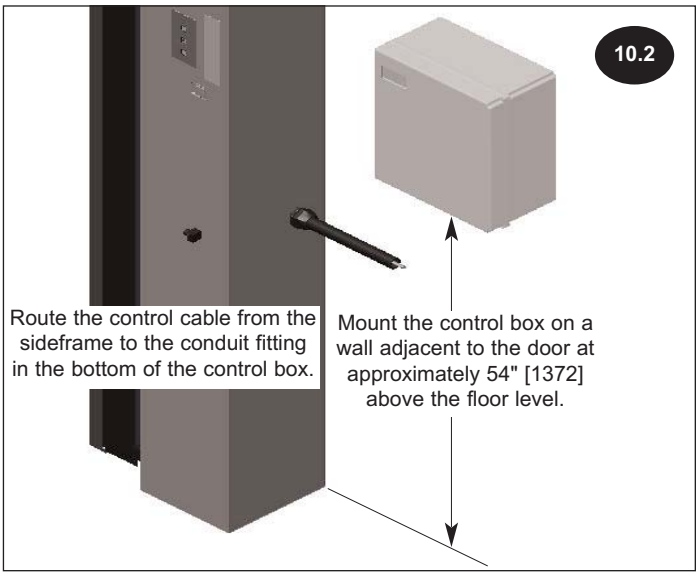
NOTE: Local electrical codes may require the use of rigid conduit, rather than flexible conduit. If required, remove the control cables from the furnished flexible conduit, install the rigid conduit in its place and rewire. Make sure to remove and replace the conduit connector in the bottom of the control box.

5. **Drill a hole for the power supply cable (by others) in the BOTTOM of the control box using the proper connection to maintain the NEMA rating on the enclosure.** Incoming 3-phase power must connect into fuse holder terminals F1, F2, and F3. Ground must attach to the green/yellow terminal. All holes drilled through the control box must be through the BOTTOM of the box, ***Figure 11.1.***
6. Route all field installed wires so that separation is maintained between line voltage wires and low voltage class II wiring. Electrical prints included in the control box supersede any prints included in this owners manual on ***Pages 21-25.*** Always check parts or control box for prints.

⚠ CAUTION !!!

The first time that the door system is operated, it may move in the wrong direction if the incoming power phase is reversed. Be prepared to turn the disconnect switch off if the door begins closing instead of opening.





CHAPTER 3 - ELECTRICAL INSTALLATION

⚠ WARNING!!!

DO NOT DRILL HOLES ON TOP OF CONTROL BOX TO RUN CONDUIT, AS DUST PARTICLES AND MOISTURE MAY CAUSE DAMAGE TO ELECTRICAL COMPONENTS.
THE SAFEST LOCATION IS AT THE BOTTOM. FAILURE TO DO SO, WILL VOID WARRANTY

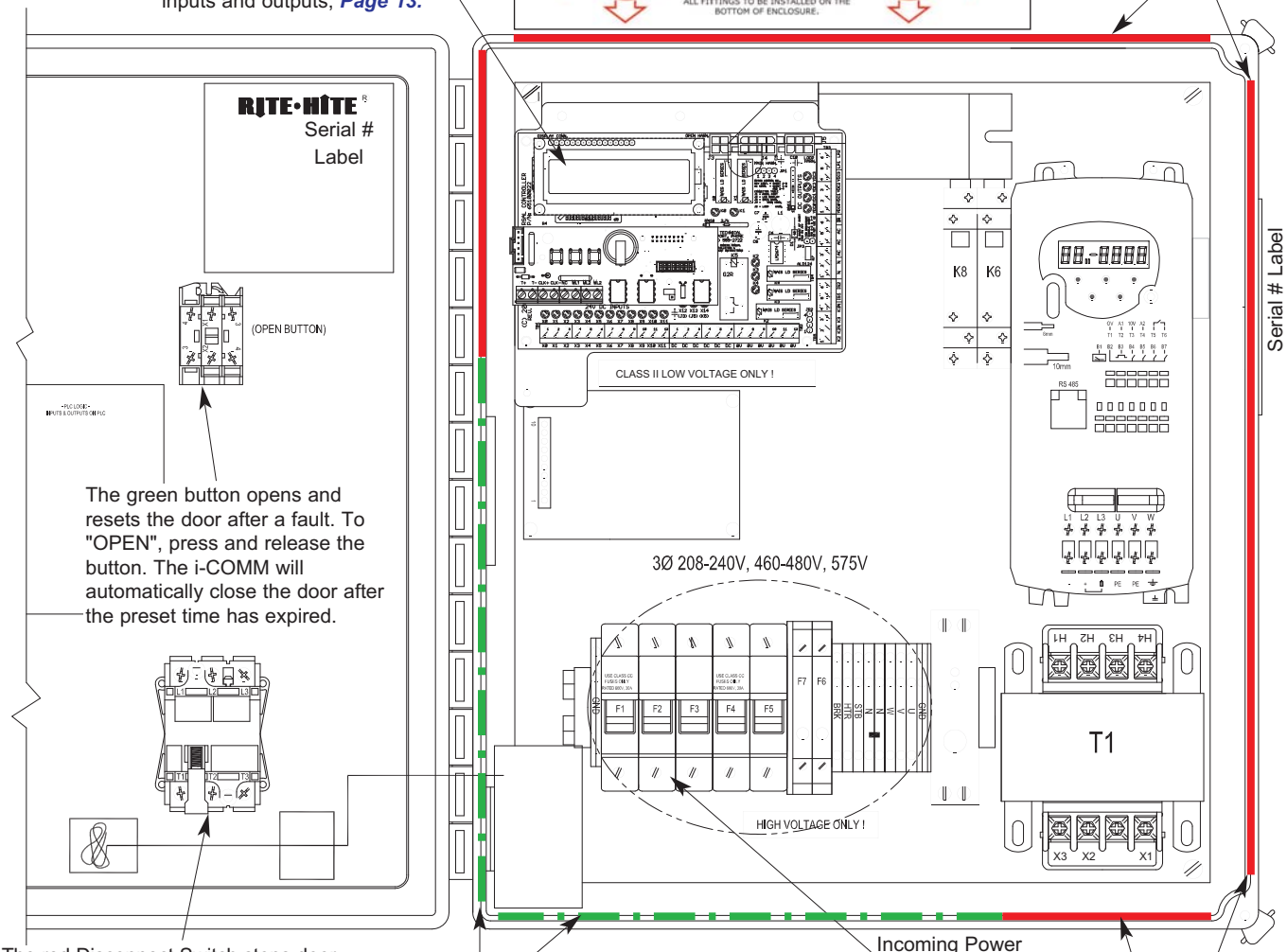
11.1

The i-COMM is used to control all functions of the door.

Note label inside control box that is a ready reference to the i-COMM inputs and outputs, ***Page 13.***

Remove labels after installation is complete

Red Bold Solid Line Indicates Un-Safe Area for Drilling Holes

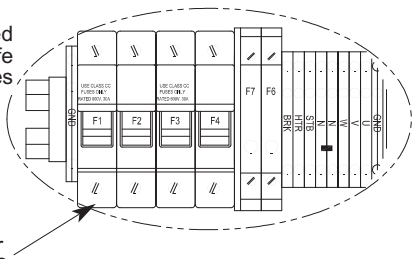


The green button opens and resets the door after a fault. To "OPEN", press and release the button. The i-COMM will automatically close the door after the preset time has expired.

The red Disconnect Switch stops door operation. The control is rotated to the "ON" position for normal door operation. To stop door operation rotate the control to the "OFF" position.
Whenever the door operation is stopped by using the disconnect switch, you must do the following to resume operation.

1. Rotate the red disconnect switch to the "ON" position.
2. Press the "OPEN/RESET" button to reset and open the door.

220V 1Ø CONFIGURATION



Incoming Power Terminals F1, F2, F3

Green Bold Dashed Line Indicates Safe Area for Drilling Holes

Incoming Power Terminals F1, F2

Red Bold Solid Line Indicates Un-Safe Area for Drilling Holes

Electrical

CHAPTER 3 - ELECTRICAL INSTALLATION

ENCODER SETUP INSTRUCTIONS

Before beginning the encoder adjustments, manually move the door to either the open or close position. Verify all wiring to the encoder is terminated as shown on the electrical drawings included in the Control Box. If motor rotation (phase sequence) is changed during this setup, please restart this procedure from the beginning.

1. Power up the door, and press the enter button [ ] to enter the **"MAIN MENU".**
2. Using the down [ ] arrow key, scroll to the parameter named **"Open Distance".**
3. Press the enter button [ ] to view the value of this parameter. The unit of measure on this parameter is feet. The optimum value for this parameter is door opening width minus 1 foot. Change the value using the arrow keys [ ] and [ ], round down if required. When parameter is changed press enter [ ] to return to the **"MAIN MENU".**
4. IMPORTANT! For doors started in the OPEN position continue to step 5, for doors started in the CLOSE position jump to step 9.
5. Scroll using the down [] arrow key to the item named **"Set Open Pos.".**
6. Press the enter button [ ] to view this parameter. The controller will display the following message **"RESET ALL LIMITS"** … **"Press Up to Start".** Pressing the up [] arrow key will reset all of the limits, and reboot the controller. **NOTE: Do not use this menu item to make adjustment to the limits; this is only for initial setup.**
7. Press the Open/Reset button on the control box. The door should begin to time out and then close. Since motor rotation may need to be changed, be ready to shutdown the door if it begins to move in the wrong direction. If motor rotation is changed, begin again at step #1.
8. If rotation is correct proceed to the instructions for adjusting the open and close positions. Do not continue with step 9!
9. IMPORTANT! The following steps are for doors started in the CLOSE position. If you already completed the steps above for OPEN, DO NOT CONTINUE.
10. Scroll using the down [ ] arrow key to the item named "Set Close Pos.".
11. Press the enter button [ ] to view this parameter. The controller will display the following message "RESET ALL LIMITS" … **"Press Up to Start".** Pressing the up [ ] arrow key will reset all of the limits, and reboot the controller. NOTE: Do not use this menu item to make adjustment to the limits; this is only for initial setup.
12. Press the Open/Reset button on the control box. The door should begin to open. Since motor rotation may need to be changed, be ready to shutdown the door if it begins to move in the wrong direction. If motor rotation is changed, begin again at step #1.
13. If rotation is correct proceed to the instructions for adjusting the open and close positions.

Open and Close Position Adjustment

To adjust the CLOSE position:

1. Power up the door, and press the enter button [] to enter the **"MAIN MENU".**
2. Using the down [ ] arrow key, scroll to the item named **"Close Pos. Adjust".**
3. Press the enter button [ ] to view the value of this parameter. This parameter will show a coded value on the left and relative change in inches on the right. When entering this parameter the value will always start at 0.0".

   To bring the curtain leading edges closer together, adjust this value so that it is less than zero. (i.e. To close the door 4" more, the value for **"Close Pos. Adjust"** will be -4.0") Moving this parameter in the positive direction separates the leading edges. Changing this value will not affect the open position.
   Change the value using the arrow keys [ ] and [ ].

Note: If you leave this parameter and return to it, its value will again be zero. Any changes made before leaving the parameter will still be effective. For example: If you lowered the door 4.0", leave the parameter and return, the parameter will display 0.0". Even though the display shows 0.0" the -4.0" change has been recorded.

4. When parameter is changed press enter [ ] to return to the **"MAIN MENU".**
5. Scroll using the down [ ] arrow key to the item named **"Exit [Enter]".**
6. Test operation of the door, and continue adjustment as required.

TIP: At any point in the menu mode, Pressing and holding the enter button [ ] for at least 2 seconds will cause the controller to automatically accept all the changes made and exit the menu system.

To adjust the OPEN position:

1. Power up the door, and press the enter button [ ] to enter the **"MAIN MENU".**
2. Using the down [ ] arrow key, scroll to the item named **"Open Pos. Adjust".**
3. Press the enter button [ ] to view the value of this parameter. This parameter will show a coded value on the left and the opening width in inches on the right. This value will always be less than the door opening width.

   To bring the open position down (further open) adjust this value to be less than the current value. To open the door less, adjust this parameter in a positive direction. (i.e. To open the door 4" more, and the current value is 72.0". Change the value for **"Open Pos. Adjust"** to be 76.0") Changing this value will not affect the close position. Change the value using the arrow keys [ ] and [ ].
4. When parameter is changed press enter [ ] to return to the **"MAIN MENU".**
5. Scroll using the down [ ] arrow key to the item named **"Exit [Enter]".**
6. Test operation of the door, and continue adjustment as required.

IMPORTANT!!!

Failure to properly ground encoder wires may result in varying open and close stopping positions.

CHAPTER 3 - ELECTRICAL INSTALLATION

RITE-HITE DOORS

SplitSecond™ Series
i-COMM Quick Reference

Input Table

Input	Input Function	Comments	Note(s)
X0	Manual Open Command	On to open door	
X1	Stop Command N/O	On to stop door	
X2	Torque Reverse	Off to reverse door	
X3,X6,X7	Activation Command	On to open door	1
X4	Close Command	On to close door	
X5	Toggle Command	On to toggle open or close	1
X8	Not Used	Not Used	
X9,X10,X11	Photoeye Input	All must be on for door to close. Off when blocked.	
X12	Open/Reset Switch	On to reset from fault.	2
X13	Induction Loop Activation	On to open door	2
X14	Fault Input	Must be on for door to run.	

Output	Description
YK2	Not used
YK3	On when door closed (interlock out)
YDC0	On during pre-announce to close
YDC1	Output disabled
YDC2	Not used
YDC3	Output disabled

Encoder Adjustment Descriptions
(Refer to i-COMM and SplitSecond Manuals for additional detail)

Open Distance	Use this option to set the overall opening distance of the door (in feet). For example, for an 8ft wide SplitSecond. This option should be set to "8". This measurement is used for initial limit setup only. For small adjustments of the open and close position, use "Close Position Adjust" or "Open Position Adjust"
Set Open Pos.	Use this option for initial limit setup. Manually place door in the open position and select this option. Alternatively "Set Close Pos." can be used if it is more convenient to place the door in the closed position. NOTE: This option approximately sets the open and close limits. For additional adjustment of the open and close position, use "Close Position Adjust" or "Open Position Adjust"
Set Close Pos.	Use this option for initial limit setup. Manually place door in the close position and select this option. Alternatively "Set Open Pos." can be used if it is more convenient to place the door in the open position. NOTE: This option approximately sets the open and close limits. For additional adjustment of the open and close position, use "Close Position Adjust" or "Open Position Adjust"
Open Pos. Adjust	Use this option to make small adjustment to the open position. The number displayed is the measurement between the open and closed limit. For example if this option was set to 100" the door would open 100 inches from the closed position. It is recommended to adjust the closed position of the door first, before adjusting the open position.
Close Pos. Adjust	Use this option to make small adjustment to the closed position. The number displayed is the relative displacement of the closed limit. For example, if this option was set to -1.0" the door would closed approximately 1.0 inch more. If this option was set to 2.0" the door would close 2.0 inches less.

Timer Adjustment

1. PRESS [ENTER], Controller will stop and fault door.
2. Press [UP] until desired timer is displayed, display will read "Set Close Timer" or "Set Preannounce".
3. Press [ENTER], Display will show current timer value.
4. Using [UP] & [DOWN] keys select desired time.
5. Press [ENTER] to return to Main Menu.
6. Press [DOWN] until exit is displayed.
7. Press [ENTER] to save values.
8. Reset Door.

Preannounce Timer is the amount of time the Preannounce to close output will be on before door closes.
Close Timer is the amount of time the door will remain open before the preannounce to close timer activates

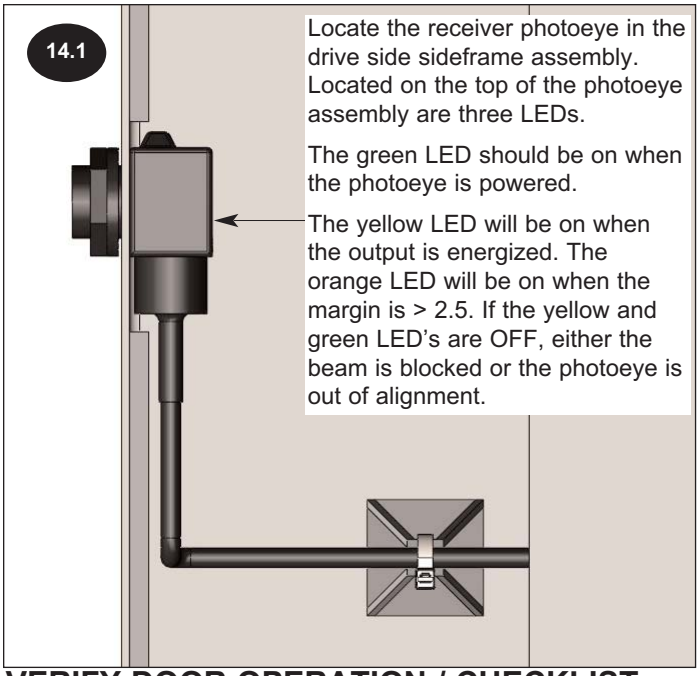
NOTES:

(1) Default setting shown in table & comments. Record any changes on space provided. Consult i-COMM manual for additional details.

(2) Device operation can be changed through menu. Consult i-COMM manual for additional details.

53850563-1

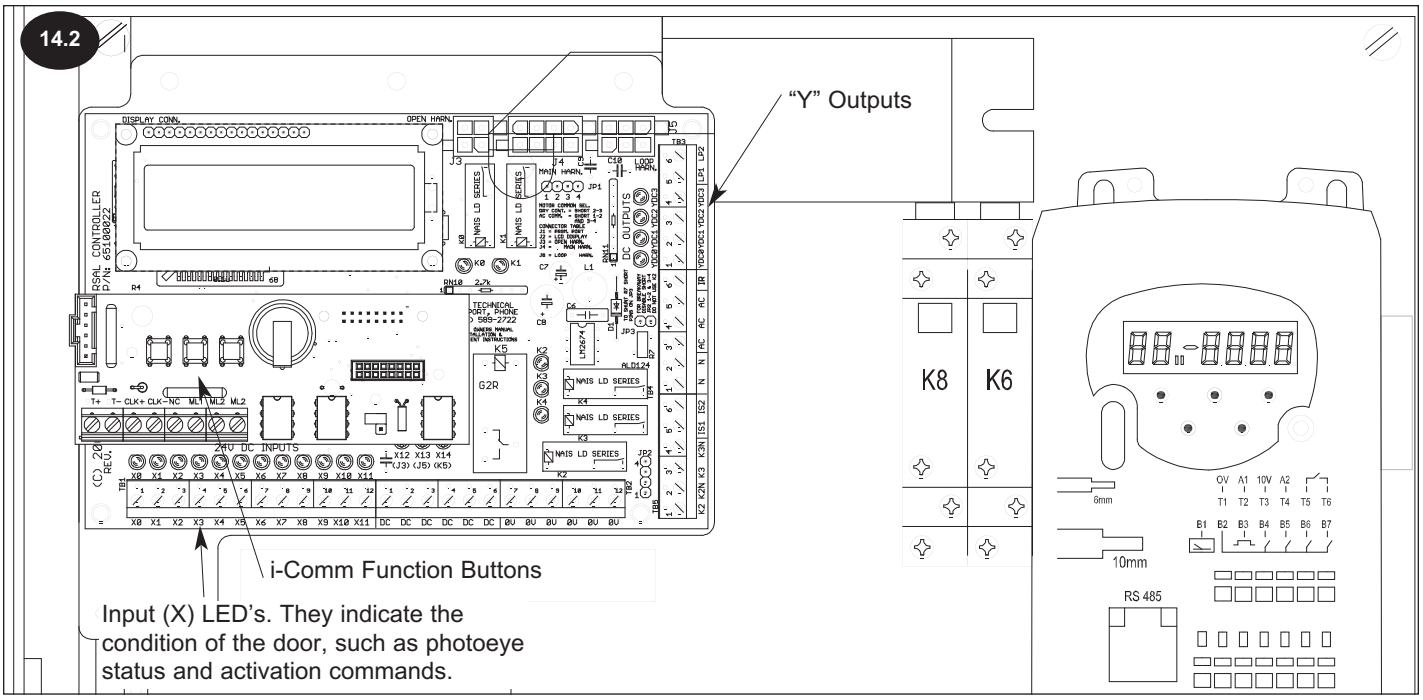
CHAPTER 4 - OPERATING PROCEDURE / CHECKLIST



VERIFY DOOR OPERATION / CHECKLIST

1. It is recommended that the operation of all controls on the SplitSecond be verified monthly.
2. The door operations are controlled by a Universal Controller. The controller is set-up and programmed during testing at the factory. Unless you are a RITE-HITE DOORS, INC. authorized service technician, you should not attempt to change the program.
3. A quick way of determining that the door is ready to operate, is to open the control box and look at the row of (X) green Input LED's on the i-COMM and the label to verify proper state.
4. Are door opening dimensions correct ?
5. Sideframes shimmed as required?
6. Check for proper line voltage ?
7. Are all mounting bolts tight ?
8. All wires connected for the photoeyes ?
9. Are loose wires secured away from moving parts?
10. With the power on, press the "OPEN" button, the door should open and close automatically after a short delay. To adjust the amount of door open time, the setting must be changed in the i-COMM controller, ***Figure 11.1.***
11. Operate and observe the door opening to make sure that it fully opens. Observe the closing action to make sure that the door operates smoothly, and fully closes without excessive curtain ripple.

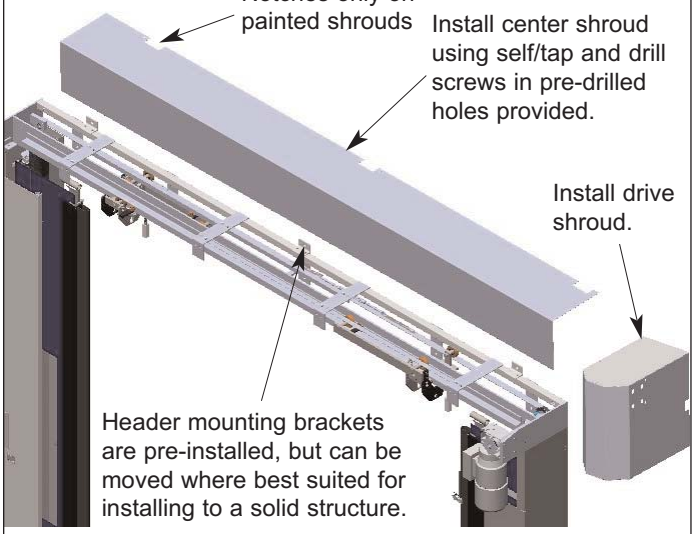
    If it is necessary to adjust either position, shut the power off and adjust the proper open or closed position.
12. While the door is closing, block the reversing photoeyes. The door should reverse direction and move to the open position, and then continue to operate.
13. While the door is closing, impact the leading edge (3) times to make sure that the door reverses and goes open and faults out.
14. Cover(s) installed.
15. Remove stainless steel sheet metal protective covering.
16. Using end user material handling equipment, approach door slowly and verify that all the activation devices that are being used are operating properly. DO NOT attempt to drive through a door in which the green button is flashing.
17. Use caution (hock horn) and look in a directions when approaching a door that is closing and ensure that the door will reverse before proceeding.
18. Pedestrians should be advised to use man doors when present and to not lean into the door way.
19. **After installation, it may be required to caulk the perimeter of the door sideframes and header, consult end user.**



CHAPTER 4 - SHROUD INSTALLATION / ADJUSTMENTS

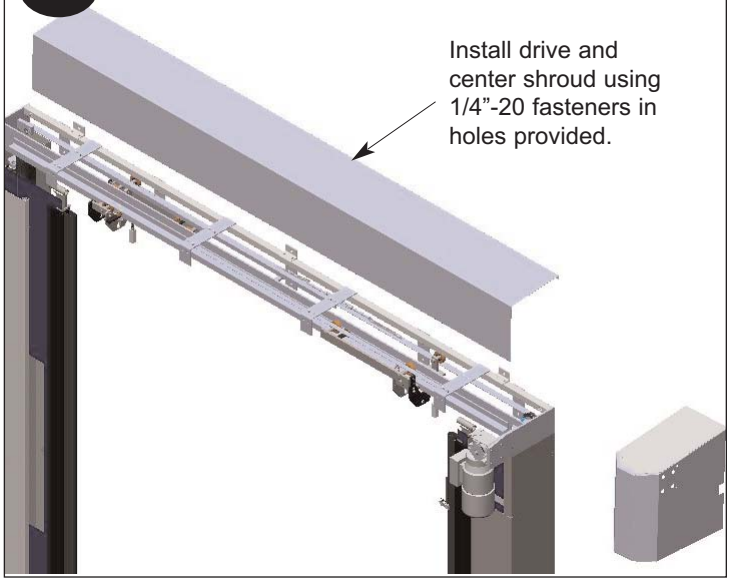
15.1

Painted Flat Shroud

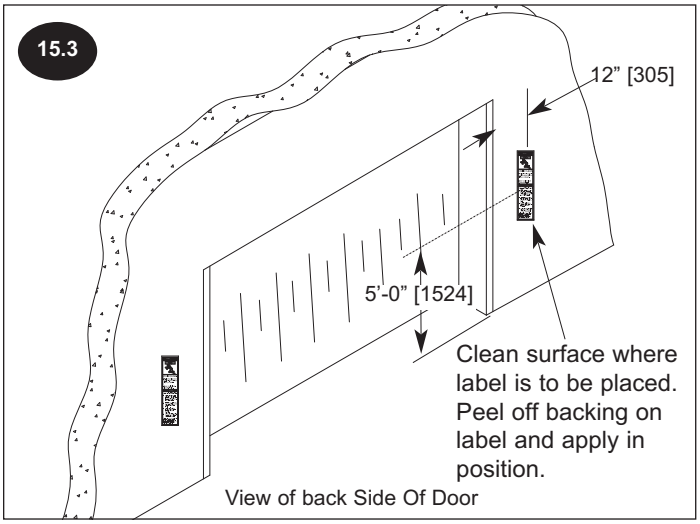


15.2

Stainless Steel Sloped Shroud

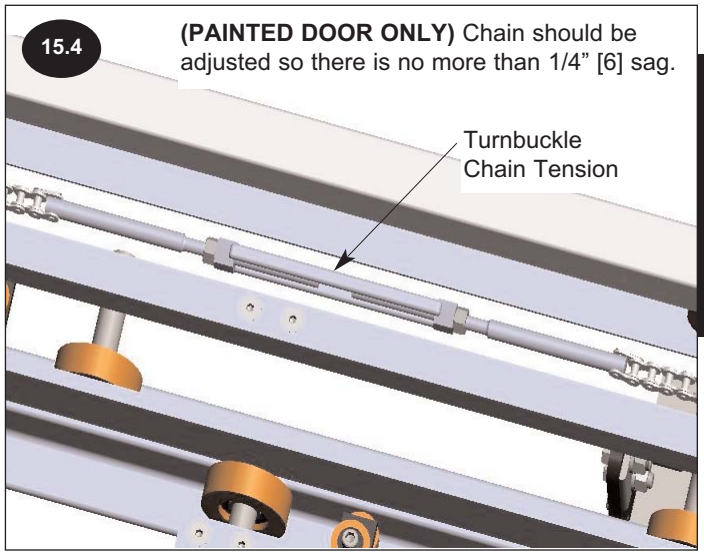


15.3

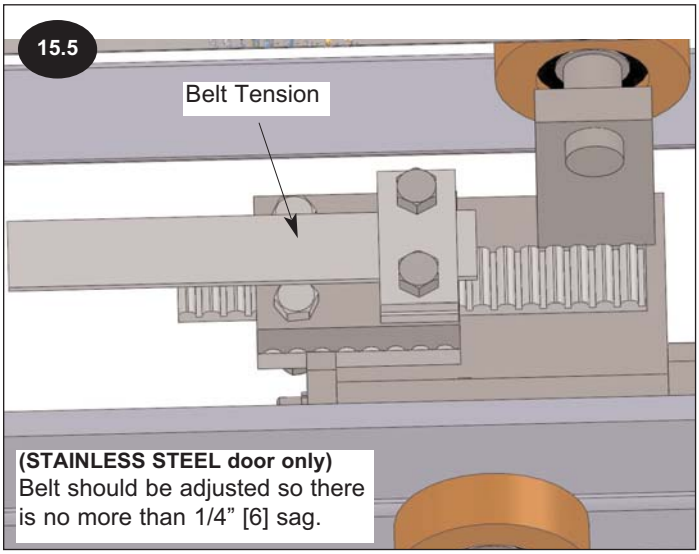


15.4

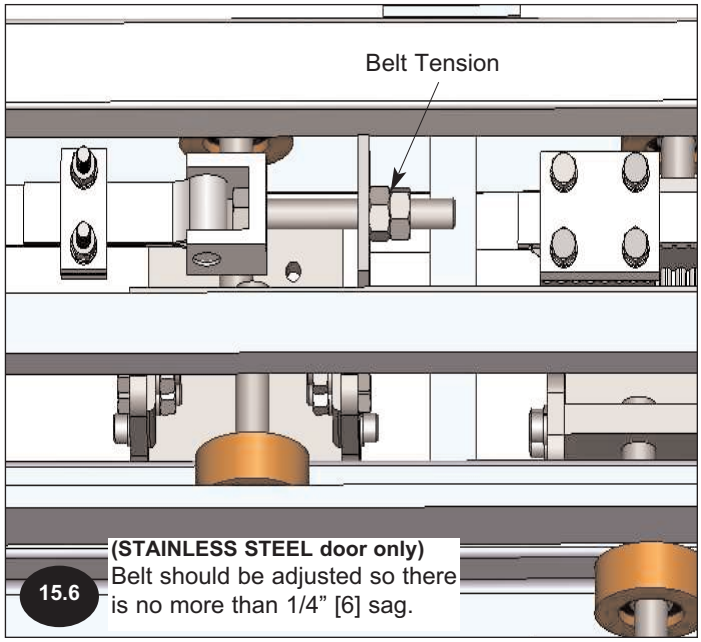
(PAINTED DOOR ONLY) Chain should be adjusted so there is no more than 1/4” [6] sag.



15.5



15.6



Final Checklist

CHAPTER 5 - INVERTER / ENCODER PROGRAMMING

SplitSecond™ Inverter Program Instructions - "WARNING: Consult factory before changing any parameters not listed in this table."

When in Status mode, pressing and holding the **"M" MODE** key for 2 seconds will change the display from displaying a speed indication to displaying load indication and visa versa.

Pressing and releasing the **"M" MODE** key will change the display from status mode to parameter view mode. In parameter view mode, the left hand display flashes the parameter number and the right hand display shows the value of that parameter.

Pressing and releasing the **"M" MODE** key again will change the display from parameter view mode to parameter edit mode. In parameter edit mode, the right hand display flashes the value in the parameter being shown in the left hand display.

Pressing the **"M" MODE** key in parameter edit mode will return the drive to the parameter view mode. If the **"M" MODE** key is pressed again then the drive will return to status mode, but if either of the **"UP"** or **"DOWN"** keys are pressed to change the parameter being viewed before the **"M" MODE** key is pressed, pressing the **"M" MODE** key will change the display to the parameter edit mode again. This allows the user to very easily change between parameter view and edit modes whilst commissioning the drive.

Parameter Number	Name	Default Value	New Value	Units
00.03	**Acceleration Rate 1**	**5.0**	**0.5**	**s/100 Hz**
00.04	**Deceleration Rate 1**	**10.0**	**0.7**	**S/100 Hz**
00.10	**Security Status**	**L1**	**L2**	
00.18	**Preset Speed 1**	**0.00**	**0.00**	**Hz**
00.61	**Torque Detection Level**	**0**	**50**	**%**

SplitSecond - Status Modes

Left Display	Status	Explanation
rd	Drive ready	The drive is enabled and ready for a start command. The output bridge is inactive.
ih	Drive inhibited	The drive is inhibited because there is no enable command, or a coast to stop is in progress or the drive is inhibited during a trip reset.
Er	Drive has tripped	The drive has tripped. The trip code will display in the right hand display.
dC	Injection braking	DC injection braking current is being applied to the motor.
Fr		Drive output frequency in Hz
SP		Motor speed in RPM
Ld		Load current as a % of motor rated load current
A		Drive output current per phase in A

OPTION	DESCRIPTION
Open Distance	Use this option to set the overall opening distance of the door (in feet). For example, for an 8' wide SplitSecond. This option should be set to "8". This measurement is used for initial position setup only. For small adjustments of the open and close position, use "Close Position Adjust" or "Open Position Adjust"
Set Open Pos	Use this option for initial position setup. Manually place door in the open position and select this option. Alternatively "Set Close Pos." can be used if it is more convenient to place the door in the closed position. NOTE: This option approximately sets the open and close positions. For additional adjustment of the open and close position, use "Close Position Adjust" or "Open Position Adjust"
Set Close Pos	Use this option for initial position setup. Manually place door in the close position and select this option. Alternatively "Set Open Pos." can be used if it is more convenient to place the door in the open position. NOTE: This option approximately sets the open and close positions. For additional adjustment of the open and close position, use "Close Position Adjust" or "Open Position Adjust"
Open Pos Adjust	Use this option to make small adjustment to the open position. The number displayed is the measurement between the open and closed position. For example if this option was set to 100" the door would open 100 inches from the closed position. It is recommended to adjust the closed position of the door first, before adjusting the open position.
Close Pos Adjust	Use this option to make small adjustment to the closed position. The number displayed is the relative displacement of the closed position. For example, if this option was set to -1.0" the door would closed approximately 1.0 inch more. If this option was set to 2.0" the door would close 2.0 inches less.
Apr Open Pos	Use this option to adjust the approach open position. This option is a measurement in inches from the open position. For example, if this option was set to 24.0" the door would slow down 24 inches from the open position.
Encoder Startup	The controller is waiting for valid data from the encoder. It the controller does not receive a response at startup, this will remain on the screen indefinitely. If this does not clear with 5 seconds, please check all encoder wiring.
Encoder Read	The controller is unable to read valid data from the encoder. Check all wiring. Ensure that the shield on the encoder cable is connected to ground, and that the control box is grounded. The error requires the power to be cycled to reset.
Encoder Velocity	The controller has received a signal from the encoder that the door is moving faster than allowed. This can occur if the encoder is not properly attached to the shaft, bad electrical connection to the i-COMM, or improper grounding. The error requires the power to be cycled to reset.

CHAPTER 5 - INVERTER CODES

SplitSecond - Inverter Error Codes		
Trip Code	**Condition**	**Possible Cause**
tr UU	DC bus under voltage	Low AC supply voltage, check power source. Low DC voltage when supplied by an external DC power supply.
tr OV	DC bus over voltage	The DC bus (Pr. 84) has exceeded 800V-460V or 400V-230VAC, check the following: If DC bus climbs while door is not running, disconnect CE filter with power off. If fault is intermittent when door is not running try to set Automatic reset of faults. (PR. 73 = 10.34, PR. 74=10.36, PR. 63 = 3, PR 64 = on) If fault is while door is closing add breaking resistor, see Control Box Explosion for a list of parts. Deceleration rate set too fast for the inertia of the machine. Mechanical load driving the motor.
tr It.br	I^2C on braking resistor	Check door closing speed. If fault is while door is closing, add breaking resistor, see Control Box Explosion for parts breakdown. See tr OV for more troubleshooting.
tr It. AC	I^2C on drive output	Check that radial spacing and that they are square, or sideframe spacing. Motor wiring, check for loose connections or shorts. Make sure door cannot move if brake is engaged.
tr OI.AC	Drive output instantaneous over current	Door is mechanical binding or jammed. Check that radial spacing and that they are square, or sideframe spacing. Motor wiring, check for loose connections or shorts. Make sure door cannot move if brake is engaged. Disconnect CE filter with power off. Insufficient ramp times. Phase to phase or phase to ground short circuit on the drives output. Drive requires autotuning to the motor. Motor or motor connections changed, re-auto tune drive to motor MUST wait 10 seconds to reset after trip occurs
OI.br	Braking resistor instantaneous over current	Excessive braking current in braking resistor Braking resistor value too small. MUST wait 10 seconds to reset after trip occurs
O.SPd	Over speed	Excessive motor speed (typically caused by mechanical load driving the motor)
tunE	Auto tune stopped before complete	Run command removed before autotune complete
It.br	I^2-t on braking resistor	Excessive braking resistor energy
It.AC	I^2-t on drive output current	Excessive mechanical load. Drive requires re-autotuning to motor. High impedance phase to phase or phase to ground short circuit at drive output.
O.ht1	IGBT over heat based on drives thermal model	Overheat software thermal model
O.ht2	Over heat based on drives heatsink	Heatsink temperature exceeds allowable maximum
th	Motor thermistor trip	Excessive motor temperature
O.Ld1	User +24V or digital output overload	Excessive load or short circuit on +24V output The Enable/Reset terminal will not reset an O.Ld1 trip. Use the Stop/Reset key.
OUL.d	I x t overload	Reduce motor current
hot	Heatsink/IGBT temp is high	Reduce ambient temperature or reduce motor current
br.rS	Braking resistor overload	See Advanced user guide
EEF	Internal drive EEPROM failure	Possible loss of parameter values
PH	Input phase imbalance or	One of the input phases has become disconnected from the drive input phase loss
rS	Failure to measure motors stator resistance	Motor too small for drive Motor cable disconnected during measurement
O.cL	Overload on current loop input	Input current exceeds 25mA
tr HF ##	Hardware Fault	The drive has detected a hardware problem, verify wiring is correct. This cannot be fixed in the field, replace the drive.
HF 05 trip		No signal from DSP at start up
HF 06 trip		Unexpected Interrupt
HF 07 trip		Watchdog failure
HF 08 trip		Interrupt crash (code overrun)
HF 11 trip		Access to the EEPROM failed
HF 20 trip		Power stage - code error
HF 21 trip		Power stage - unrecognized frame size
HF 22 trip		OI failure at power up
HF 25 trip		DSP Communications failure
HF 26 trip		Soft start relay failed to close, or soft start monitor failed or braking IGBT short circuit at power up
HF 27 trip		Power stage thermistor fault
HF 28 trip		DSp software overrun
HF xx trip		HF 1-4, 9-10,12-19,23,24,29,30 Are not used

CHAPTER 5 - MAINTENANCE

RITE-HITE DOORS, INC. PLANNED MAINTENANCE
Model SplitSecond™

CUSTOMER:	JOB#	SERIAL#	DATE:

Planned Maintenance Task	Recommended P.M. Intervals (Time Shown In Months)							Inspect and Perform the Following
	1	6	12	18	24	30	36	
Activation		x	x		x		x	Operate all devices to verify proper operation.
Belting/Sprockets	x		x		x		x	Verify belt is tensioned properly. Check belt and sprockets for wear. See *Page 15* for details.
Bottom Seal		x	x		x		x	Verify bottom seal is sealing and properly attached.
Brake / Non-Powered Opening	x		x		x		x	Verify that brake stops the door at open and closed positions as well as when stopped in the middle of travel. To move the curtain manually, release the brake by pulling the rope. The curtain should roll open automatically. If brake is making noise, adjust.
Chain/Sprockets			x		x		x	Verify chain is tensioned properly. Check chain and sprockets for wear and lubricate as required.
Controls / Wiring			x		x		x	Clean, check all connections with disconnect off. Make sure all wires are free from moving parts.
Curtain			x		x		x	Verify curtain tube springs are allowing curtain to wind up properly. Inspect curtain for wear or damage and patch immediately to prevent further damage. Clean with warm soapy water.
Door Assembly			x		x		x	Perform visual inspection for damage. Tighten all hardware. Replace any worn labels. Use air hose to remove dust and debris.
Door Operation			x		x		x	Operate door and make sure all operations are functioning properly.
Encoder		x	x		x		x	Check open and close positions, adjust as required.
Gearbox			x		x		x	Check gearbox fluid level, fill with 90 weight if low.
Header Seal			x		x		x	Verify header seal is sealing curtain to header.
Leading Edge			x		x		x	Verify leading edges are sealing properly, adjust tension arm as required.
Motor			x		x		x	Check junction box and plug connections.
Photoeyes		x	x	x	x	x	x	Verify all three photoeyes are properly aligned and reverse the curtain. LED's on i-COMM should go on/off. Clean emitter and receiver lens.
Pillow Block Bearings			x		x		x	Lubricate as required.
Shrouds and Covers			x		x		x	Make sure all shrouds and protective covers are in place and securely fastened.
Sideframes / Covers / Seals		x	x	x	X	X	X	Perform visual inspection. Verify proper sideframe width and tighten all hardware. If sideframe latch is present, verify it works properly. Make sure sideframe covers open and close properly. Verify all seals are sealing properly.
Tension Arm			x		x		x	Verify tension arms are adjusted properly and sheer pin is in place.
Torque Setting		x	x	x	x	x	x	Test leading edge torque and adjust.
Trolleys			x		x		x	Verify trolley rollers are functioning properly.
Vision			x		x		x	Inspect vision for tears or separation. Clean with warm soapy water.

CHAPTER 5 - TROUBLESHOOTING

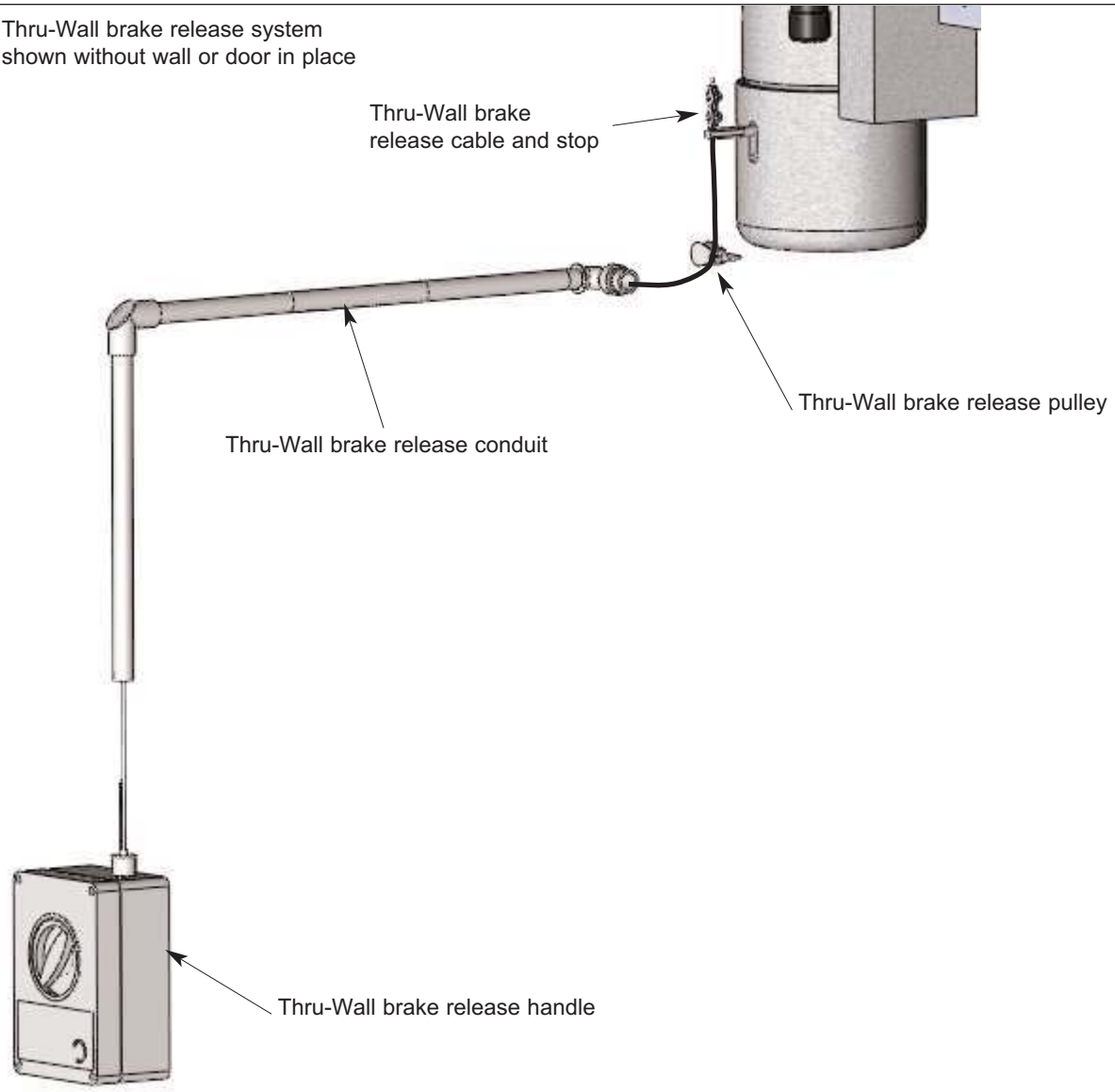
DEFINITION	FUNCTION
Activation	It is preferred not to wire activation devices until after the door is functioning properly. For activation questions, refer to the Activation Manual and terminals X5 & X6 & X7.
Brake / Bridge Rectifier	If the brake is not functioning properly, check the following: a) Check F7 fuse-replace. b) Check rectifier, must have 120VAC incoming and 105VDC outgoing. c) Brake wiring at terminals BRK & N and junction box connections. d) Brake will have 335 ohms on normal readings. (must be checked after the rectifier)
Conduit Cable	**DO NOT DRILL HOLES ON TOP OF CONTROL BOX TO RUN CONDUIT, AS DUST PARTICLES AND MOISTURE MAY CAUSE DAMAGE TO ELECTRICAL COMPONENTS. THE IDEA SAFEST LOCATION IS AT THE BOTTOM. Failure to do so, voids warranty.** If supplied conduit cable is too short, DO NOT splice wires, as the cable is shielded to prevent electrical noise from entering the control box i-COMM universal controller. Contact Aftermarket for replacement.
Curtain	If the curtain will not roll up or only one side will roll up, or it rolls up crooked, check the following: a) Curtain dragging and catching on the floor, sideframe or seals. b) Spring is broken, replace as required. If the curtain does not fully open or close, adjust the open or closed positions as needed. c) Adjust the noses to maintain a tight seal by adjusting the leading edge arm bolt. d) Adjust the lower base plate to align noses. e) Make sure top of curtain is not loose, if it is, verify that additional piece of curtain is installed at the top.
Disconnect Switch	The disconnect switch is in line with fuse holder terminals F1, F2, F3, and removes power from the entire control box, except for terminals F1, F2, F3.
D.O.H. or D.O.W.	D.O.H. = Door Opening Height or D.O.W. = Door Opening Width
Drive Belt (Pharma door only)	The drive belt tension is pre-determined at the factory. Check the following: a) If the drive belt is walking across the pulleys, loosen the belting from the pressure plates and re-position belting on the pressure plate. b) If door is slamming open or closed, this causes premature wear on the belting. Adjust the open and close positions so the door will not slam open or close. c) If the door open and close position keeps changing, check belt tension, as it may be loose.
Drive Chain (Non Pharma door)	The drive chain tension is pre-determined at the factory. Check the following: a) If the drive chain has excessive sag, tighten so there is a maximum of 1/4" sag in the middle. b) If door is slamming open or closed, this causes premature wear on the chain. Adjust the open and close positions so the door will not slam open or close.
Drive Side Switch	In order to switch from a right to left hand drive or vise versa, a new door would need to be ordered.
Encoder	See Encoder Section. **THE ENCODER CABLE SHOULD NEVER BE SPLICED OR EXTENDED.** a) If curtain is not stopping at the same position, verify encoder cable is grounded per drawing on ***Page 12.***
Fuses	F1, F2, F3: Incoming power fuses, must have line voltage across all 3 legs. (Transformer, Inverter, motor) F4, F5: Primary side transformer fuses, must have line voltage across both legs. F6, F7: Secondary side transformer fuses, F6 is 24V and F7 is 120V (power supply & brake).
i-COMM Controller™	The i-COMM controller is a circuit board that controls the actions of the door. There is a digital display that shows the cycles, status and position of the door at any time during its travel. For input and output function signals, refer to chart on ***Page 13.*** Settings can be changed for re-close or pre-announce timers, interlocks, special activation commands, among many others, refer to instructional manual included. a) If i-Comm display is blank or hard to see, adjust contrast.
Inverter	See ***Pages 16-17*** for proper parameter settings.
K8 Relay	K8 Relay is for energizing the brake, check the following: a) Terminals 1 & 5 on the relay are wired to B3 & T1 on Inverter. b) Terminal 7 is wired to F7 fuse and terminal 4 is wired to BRK (120VAC).
Leading Edge	The leading edge when impacted will reverse the door to the open position, time out then close. If the edge is impacted 3 consecutive times without reaching the close position, the door will reverse, stay open and the green open/reset button will flash until the button is reset. Adjust Torque if required, consult factory.
Manual Door Opening	The door can be opened manually in cases of electrical power outage. Pull and hold the manual brake release cord hanging from the drive motor, no more than 1'-2' at a time or serious damage may occur. This cord releases the brake and allows the torsion springs to open the door. Release the brake cord to stop the door movement before it fully opens to prevent the trolleys from hitting the header assembly.
Membrane Switch	For steel sideframe covers only, utilizes a Open, Stop and Close buttons. a) With Open button pushed, check between Brown and White wires. b) With Stop button pushed, check between Brown and Red wires. c) With Close button pushed, check between Brown and Green wires.
Motor 208V-240V	208V-240V motor will have 6 ohms on normal readings.
Motor 460V-480	460V-480V motor will have 10 - 12 ohms on normal readings.
Motor 400V	400V motor will have 23 ohms on normal readings.
Motor 575V	575V motor will have 34 ohms on normal readings.
Motor Phasing	If open button is pressed and the door closes, the phasing is reversed, reverse wires in terminals, V and W.
Motor will not run	If door will not run will given an activation, check the following: a) Check voltage to and from inverter. b) Check voltage and for loose wires at terminals, U, V, and W.
O.D.H. or O.D.W.	O.D.H. = Ordered Door Height or O.D.W. = Ordered Door Width
Open/Reset Push Button	The following are functions of the open/reset push button. The first function is when pressed, is to open the door. The second function is to reset the door when in a fault mode. When pressed the door will open (after 5 seconds door will automatically run) and automatically close and after the preset time has expired, unless the door is in a true toggle operation. When the door reversing edge has been impacted three times the light will flash and the door will not operate from an activation command. The light will continue to flash until the open/reset button is pushed. The following are reasons for the green light to be flashing: a) Power outage or startup b) Reversing edge impacted three times.
Photoeyes	The photoeyes are wired to the 24VDC circuit and are wired as normally closed when there is power to the unit and the emitter photoeye is aligned with the receiver photoeye. There are 3 lights on the receiver and one on the emitter. Yellow is for power, red and green are for proper alignment. The photoeyes will reverse or hold the door open when the photoeye beam is blocked. When the beam is not broken, the door will auto-reclose. If photoeyes require adjustment, check that sideframes are square to the wall. a) Power to Brown (DC) and Blue (OV) wires. b) Relay wires Black to Blue should be closed when photoeye is aligned and open when not aligned.
Power Supply	Power Supply will have green light on if powered. a) Powered by 120VAC from F7 fuse. b) Supplies i-Comm 24VDC. c) If i-Comm is not powered and amber light is on, unplug 8 pin (J4 connector) and power up, if green light is on, check each DC wire for short.

CHAPTER 5 - TROUBLESHOOTING

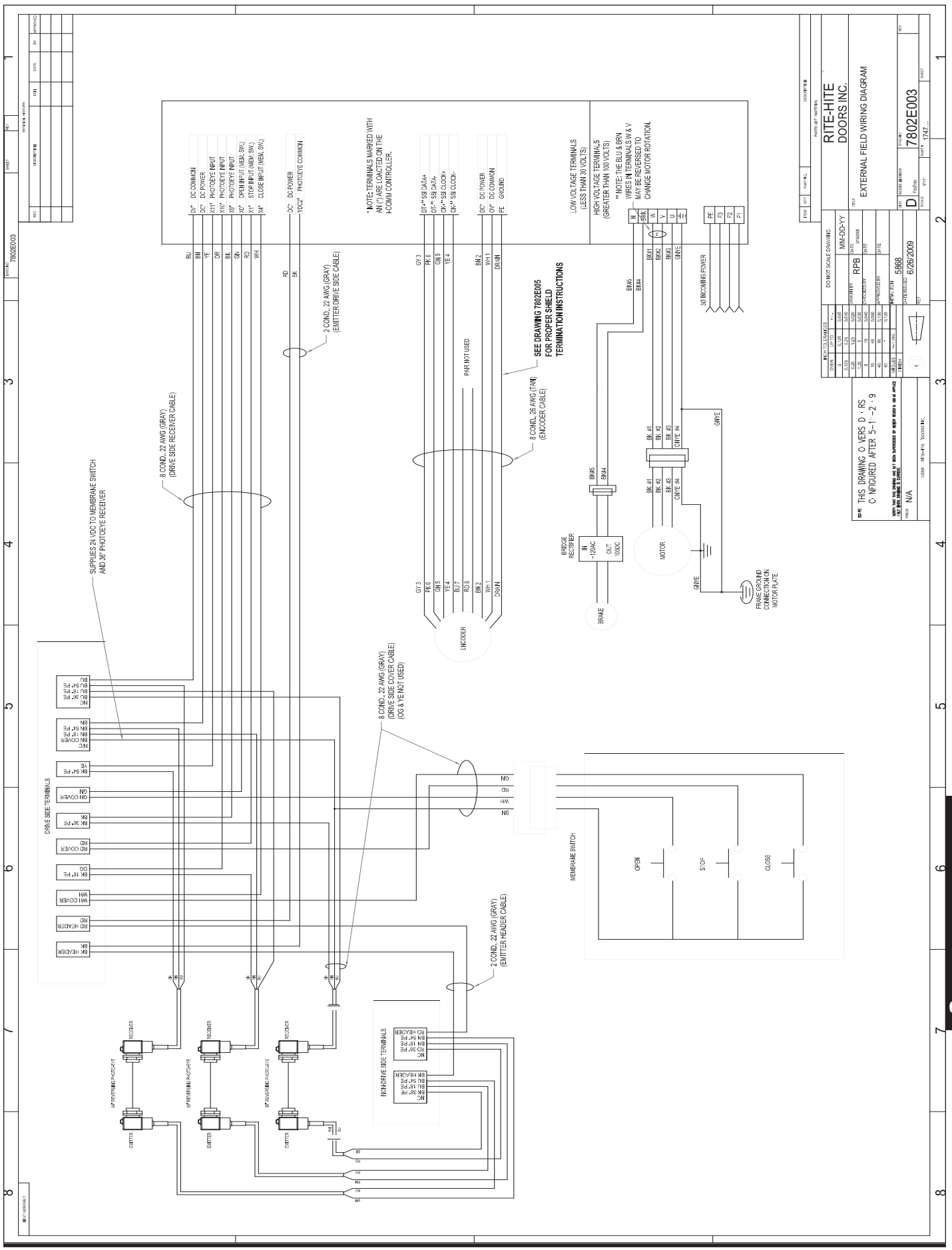
DEFINITION	FUNCTION
Wind or Negative Pressure	Tension arm holds the curtain in position to maintain a tight seal at the nose. In the case where there is excessive pressure or an impact occurs and the sheer pin breaks, you will need to replace the sheer pin.
Re-Close Timer	The door can be set to close from 2 to 255 seconds, follow i-COMM adjustment instructions.
Transformer	The standard transformer is a tri-volt transformer that takes an incoming voltage of 208V, 230V, 460V and converts it to 110VAC and 24VAC. An optional transformer is available for 380V, 415V and 575V doors. a) 208V (Taps H1-H2) 13 Ohms b) 230V (Taps H1-H3) 15 Ohms c) 380V (Taps H1-H2) 40 Ohms d) 460V (Taps H1-H4) 28 Ohms e) 415V (Taps H1-H3) 43 Ohms f) 575V (Taps H1-H4) 58 Ohms g) 120V (Taps X1-X3) 4.4-4.8 Ohms (230-460V) h) 24V (Taps X1-X2) .4 to .6 Ohms (230-460V) i) 120V (Taps X1-X3) 5.2 Ohms (380/415V) j) 24V (Taps X1-X2) 5.7 Ohms (380/415V) k) 120V(Taps X2-X3) 4.5 Ohms (230-460V) l) 24V(Taps X2-X3) 5.0 Ohms (380/415V)
Voltage Change	To change the voltage, see steps below: a) Change transformer taps and fuses per electrical diagram. b) Change motor wiring per junction box diagram. c) Replace inverter.

CHAPTER 5 - THRU-WALL BRAKE RELEASE

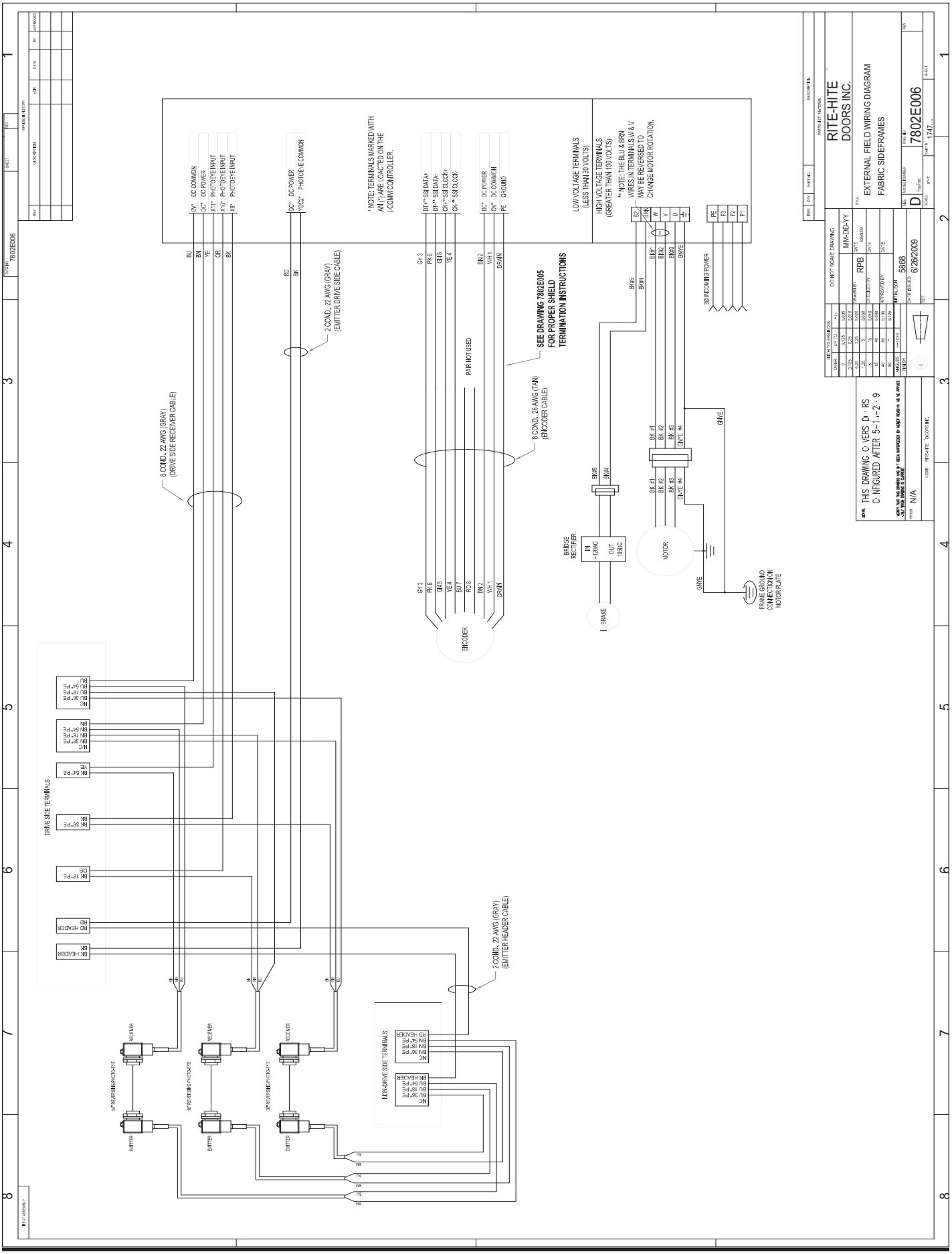
20.1 Thru-Wall brake release system shown without wall or door in place



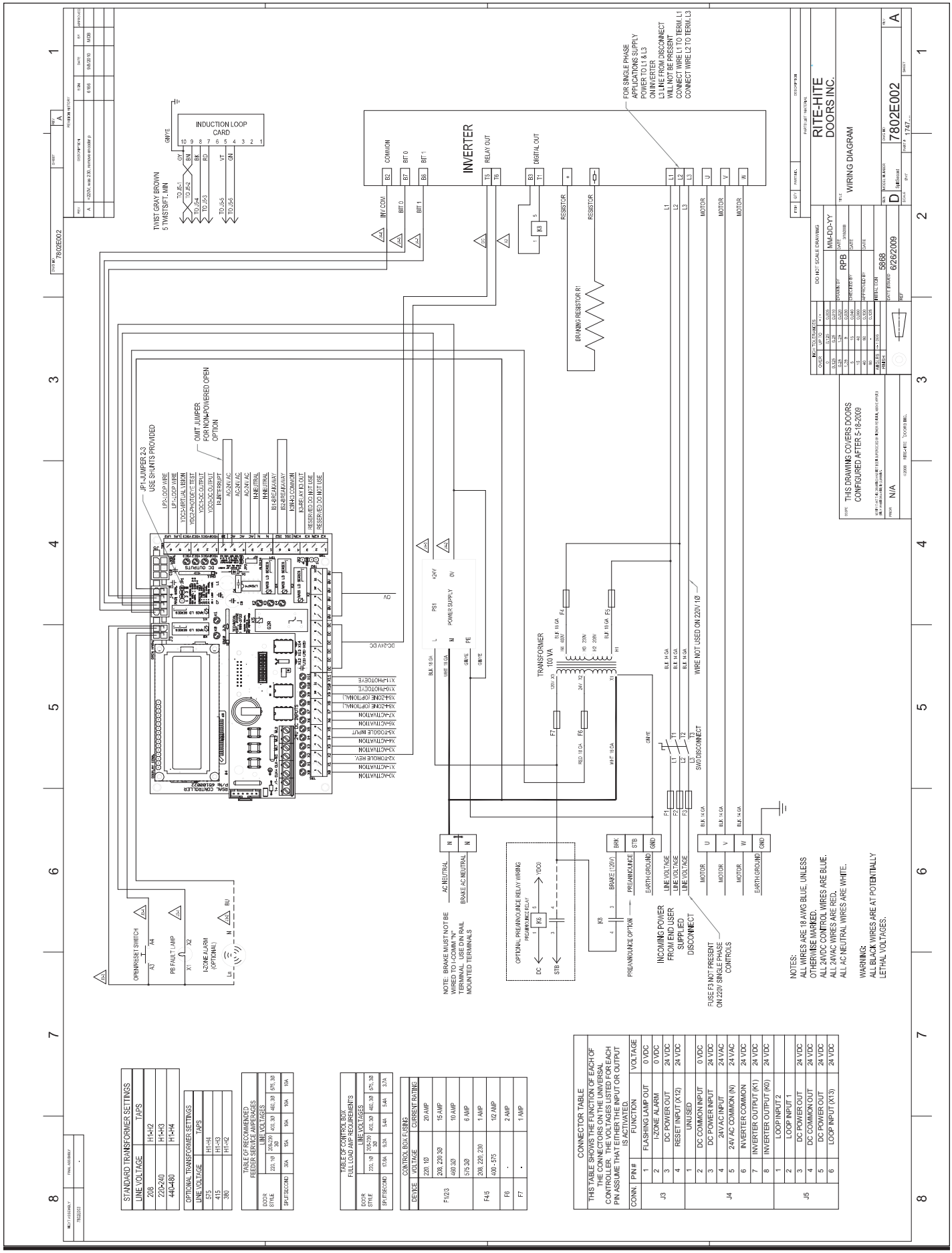
CHAPTER 6 - FIELD WIRING DIAGRAM - STEEL S/F COVERS



CHAPTER 6 - FIELD WIRING DIAGRAM - FABRIC S/F COVERS



CHAPTER 6 - WIRING DIAGRAM 230-460V



STANDARD TRANSFORMER SETTINGS	
LINE VOLTAGE	TAPS
208	H1+H2
220-240	H1+H3
440-480	H1+H4

OPTIONAL TRANSFORMER SETTINGS	
LINE VOLTAGE	TAPS
575	H1+H4
415	H1+H3
380	H1+H2

TABLE OF RECOMMENDED FEEDER SERVICE AMPERAGES					
	LINE VOLTAGES				
DOOR STYLE	220, 1Ø	208-230 3Ø	460, 3Ø	575, 3Ø	
SPLITSECOND	30A	15A	10A	10A	

TABLE OF CONTROL BOX FULL LOAD AMP REQUIREMENTS				
	LINE VOLTAGES			
DOOR STYLE	220, 1Ø	208-230 3Ø	460, 3Ø	575, 3Ø
SPLITSECOND	17.0A	9.2A	5.4A	3.7A

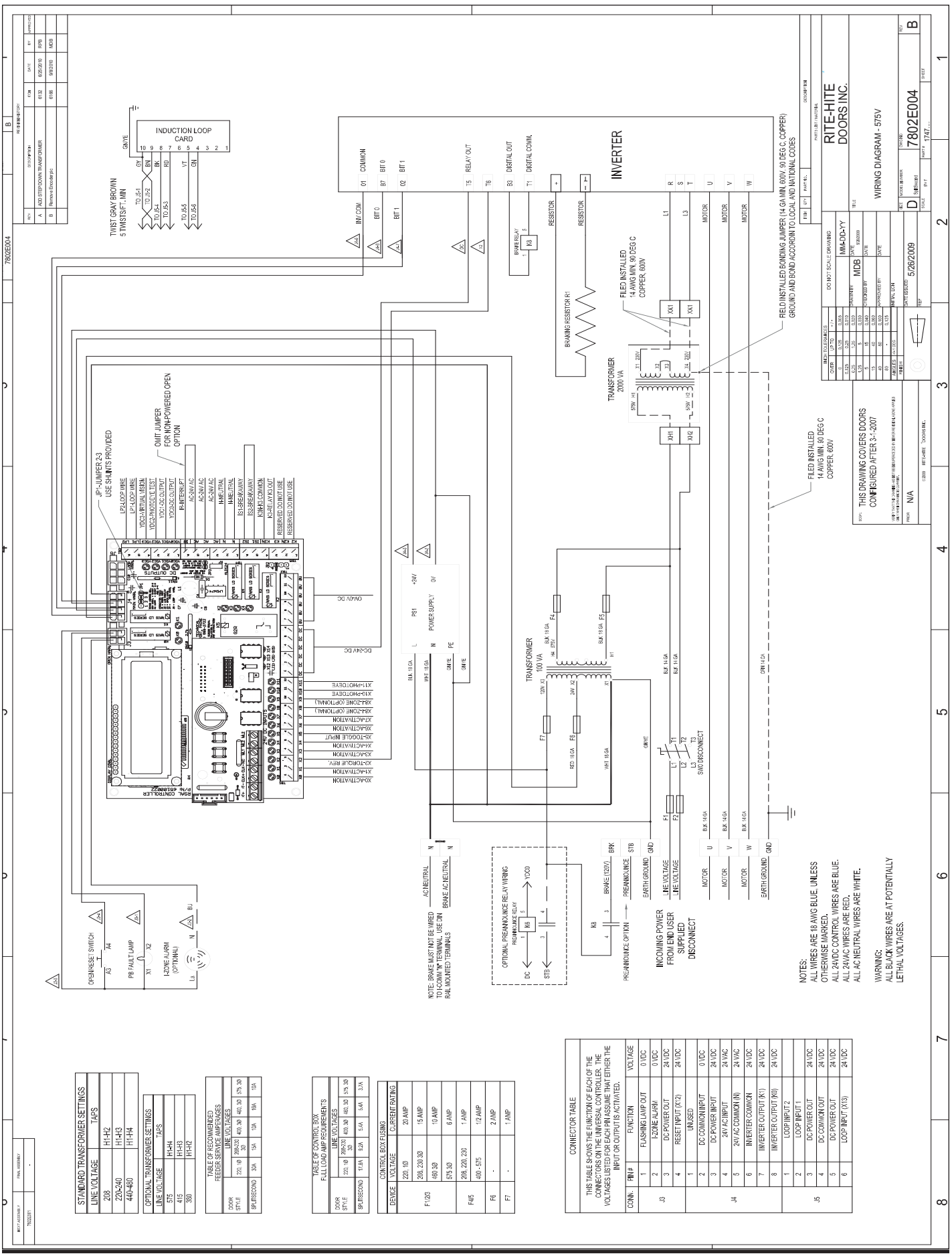
CONTROL BOX FUSING		
DEVICE	VOLTAGE	CURRENT RATING
F1/2/3	220, 1Ø	20 AMP
	208, 230, 3Ø	15 AMP
	460, 3Ø	10 AMP
	575, 3Ø	6 AMP
F4/5	208, 220, 230	1 AMP
	400 - 575	1/2 AMP
F6	-	2 AMP
F7	-	1 AMP

CONNECTOR TABLE

THIS TABLE SHOWS THE FUNCTION OF EACH OF THE CONNECTORS ON THE UNIVERSAL CONTROLLER. THE VOLTAGES LISTED FOR EACH PIN ASSUME THAT EITHER THE INPUT OR OUTPUT IS ACTIVATED.

CONN.	PIN #	FUNCTION	VOLTAGE
J3	1	FLASHING LAMP OUT	0 VDC
	2	I-ZONE ALARM	0 VDC
	3	DC POWER OUT	24 VDC
	4	RESET INPUT (X12)	24 VDC
J4	1	UNUSED	
	2	DC COMMON INPUT	0 VDC
	3	DC POWER INPUT	24 VDC
	4	24V AC INPUT	24 VAC
	5	24V AC COMMON (N)	24 VAC
	6	INVERTER COMMON	24 VDC
	7	INVERTER OUTPUT (K1)	24 VDC
	8	INVERTER OUTPUT (K6)	24 VDC
J5	1	LOOP INPUT 2	
	2	LOOP INPUT 1	
	3	DC POWER OUT	24 VDC
	4	DC COMMON OUT	24 VDC
	5	DC POWER OUT	24 VDC
	6	LOOP INPUT (X13)	24 VDC

CHAPTER 6 - WIRING DIAGRAM 575V



STANDARD TRANSFORMER SETTINGS

LINE VOLTAGE	TAPS
208	H1-H2
220-240	H1-H3
440-460	H1-H4

OPTIONAL TRANSFORMER SETTINGS

LINE VOLTAGE	TAPS
575	H1-H4
415	H1-H3
380	H1-H2

TABLE OF RECOMMENDED FEEDER WIRE AMPERAGES

DOOR STYLE	LINE VOLTAGES				
	220, 10	208-230 3Ø	400, 3Ø	460, 3Ø	575, 3Ø
SPLITSECOND	30A	15A	10A	10A	10A

TABLE OF CONTROL BOX FULL LOAD AMP REQUIREMENTS

DOOR STYLE	LINE VOLTAGES				
	220, 10	208-230 3Ø	400, 3Ø	460, 3Ø	575, 3Ø
SPLITSECOND	17.0A	9.2A	5.1A	5.4A	3.7A

CONTROL BOX FUSING

DEVICE	VOLTAGE	CURRENT RATING
F1/2/3	220, 10	20 AMP
	208, 230 3Ø	15 AMP
	460 3Ø	10 AMP
	575 3Ø	6 AMP
F4/5	208, 220, 230	1 AMP
	400 - 575	1/2 AMP
F6	-	2 AMP
F7	-	1 AMP

CONNECTOR TABLE

THIS TABLE SHOWS THE FUNCTION OF EACH OF THE CONNECTORS ON THE UNIVERSAL CONTROLLER. THE VOLTAGES LISTED FOR EACH PIN ASSUME THAT EITHER THE INPUT OR OUTPUT IS ACTIVATED.

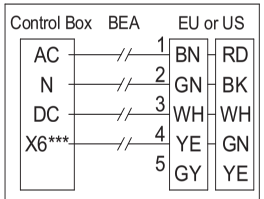
CONN.	PIN #	FUNCTION	VOLTAGE
J3	1	FLASHING LAMP OUT	0 VDC
	2	1-ZONE ALARM	0 VDC
	3	DC POWER OUT	24 VDC
	4	RESET INPUT (K12)	24 VDC
J4	1	UNUSED	
	2	DC COMMON INPUT	0 VDC
	3	DC POWER INPUT	24 VDC
	4	24V AC INPUT	24 VAC
	5	24V AC COMMON (N)	24 VAC
	6	INVERTER COMMON	24 VDC
	7	INVERTER OUTPUT (K1)	24 VDC
	8	INVERTER OUTPUT (K6)	24 VDC
J5	1	LOOP INPUT 2	
	2	LOOP INPUT 1	
	3	DC POWER OUT	24 VDC
	4	DC COMMON OUT	24 VDC
	5	DC POWER OUT	24 VDC
	6	LOOP INPUT (K13)	24 VDC

CHAPTER 6 - ACTIVATION DIAGRAM

4 | 3 | DWG NO 7802E007 | SHEET | REV | 1

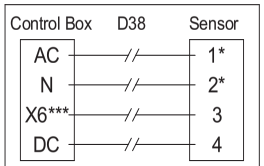
NEXT ASSEMBLY

BEA - Falcon, IS-87, EagleHM



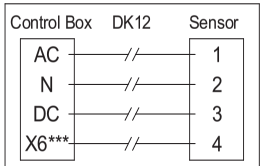
BEA Motion Sensors

MS Sedco - D38



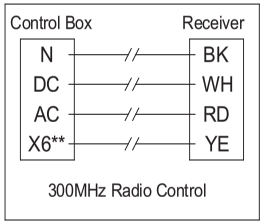
D38 Motion Sensor
*If switched, green lite will be on, and F2 fuse blown.

BEA - DK-12

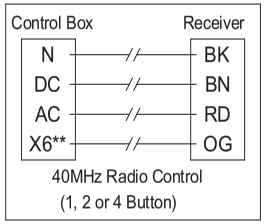


Presence Sensor

RADIO CONTROLS

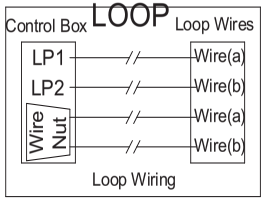


300MHz Radio Control



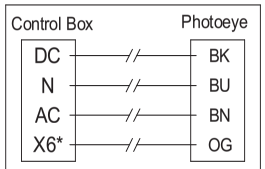
40MHz Radio Control
(1, 2 or 4 Button)

INDUCTION LOOP

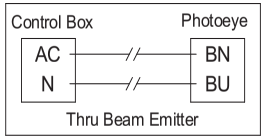


Loop Wiring

PHOTOEYES

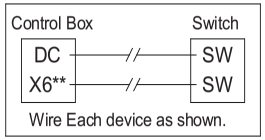


Retroreflective or Thru Beam Receiver



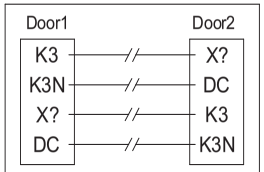
Thru Beam Emitter

PUSHBUTTONS & PULL-CORDS



Wire Each device as shown.

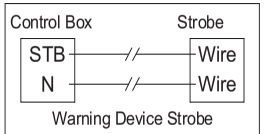
INTERLOCK



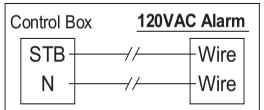
2 Door Standard Interlock

Note: Consult i-COMM manual to see which inputs can be assigned interlock in function. Connect K3 to whichever input is selected to become interlock in. No other devices should be connected to this input. Terminal Must be assigned to Interlock through i-COMM menu on both doors. (i.e. If X3 is to be assigned a function of Interlock Input, the menu ("Input Func X3") should be set to a value of "0") Output YK3 (K3 relay) should remain at the default setting of "0" on both doors.

STROBES & ALARMS

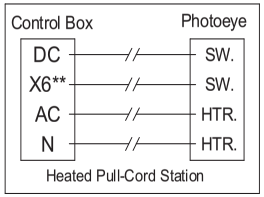


Warning Device Strobe
Additonal Relay Required
120VAC U.L. Listed .30 Amp Max



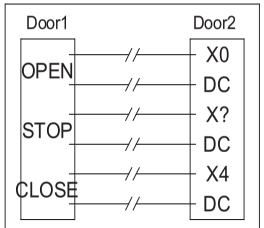
Audible Alarm

HEATED PULL CORDS



Heated Pull-Cord Station

OPEN/CLOSE STOP PUSH BUTTON STATION



Note: Consult i-COMM manual to see which inputs can be assigned STOP function. Connect STOP to whichever input is selected to become STOP. No other devices should be connected to this input. Terminal Must be assigned to STOP through i-COMM menu on both doors. (i.e. If X3 is to be assigned a function of STOP, the menu ("Input Func X3") should be set to a value of "1").

NOTES:

THIS DRAWING ASSUMES INPUT FUNCTIONS ARE SET TO FACTORY DEFUALTS. CONSULT i-COMM MANUAL FOR DETAILS
WARNING: NEVER CONNECT MOTION SENSORS TO A TOGGLE INPUT

Terminals "X6", "X7" are automatic reclose.
Terminals "DC" are DC common for inputs.
Terminals "AC" and "N" are 24VAC terminals.

*Terminal X7 is a default
**For true toggle operation use terminal "X5".
(Pull cords, push button or radio controls only.)
***For Reverse hold open connect sensors to UNUSED input.
(i.e. X3, X6, or X7 and assign that input a function of "6" in the i-COMM menu. Multiple sensors can be connected in parallel.

Consult i-COMM manual for additional instructions.

REVISION HISTORY

REV	DESCRIPTION	ECN	DATE	BY	APPROVED

ITEM	QTY	PART NO.	DESCRIPTION

PARTS LIST / MATERIAL

INCH TOLERANCES		
OVER	UP TO	+ / -
0	0.125	0.005
0.125	0.25	0.010
0.25	1.25	0.020
1.25	5	0.030
5	15	0.040
15	40	0.060
40	80	0.100
80	-	0.125
ANGLES	+/- 1 DEG	
FINISH		

DO NOT SCALE DRAWING

MM-DD-YY

DRAWN BY: RPB | DATE: 6/17/2009
CHECKED BY | DATE
APPROVED BY | DATE
INITIAL ECN: 5868
DATE ISSUED: 6/26/2009
REF

RITE-HITE DOORS INC.

TITLE: SPLITSECOND SERIES ACTIVATION WIRING i-COMM

SIZE	MODEL NUMBER	DWG NO	REV
B	SplitSecond	7802E007	

SCALE 8"=1' | PART # | SHEET

SplitSecond™

RITE-HITE DOORS NOTES PAGE

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RITE-HITE DOORS NOTES PAGE

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RITE-HITE DOORS NOTES PAGE

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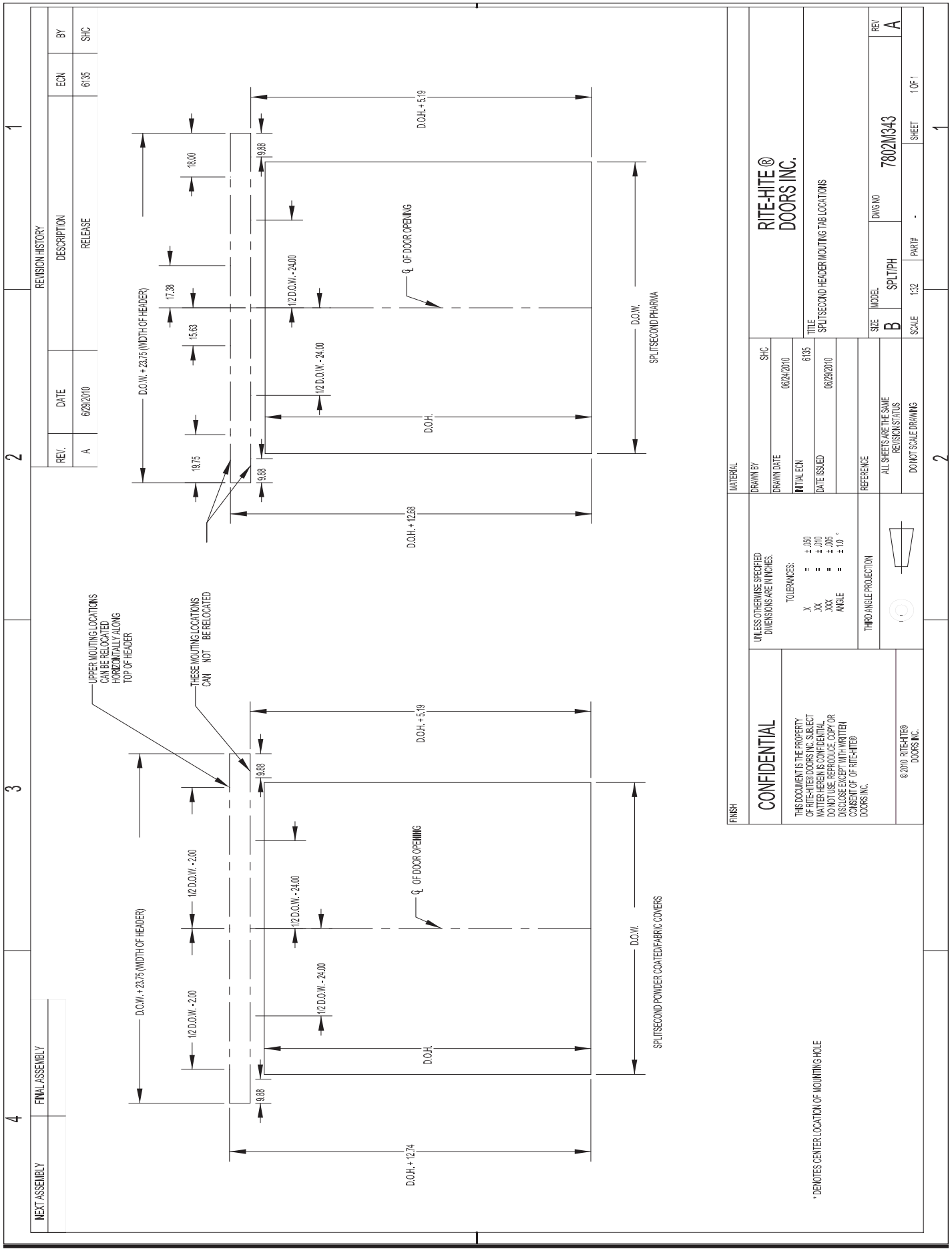
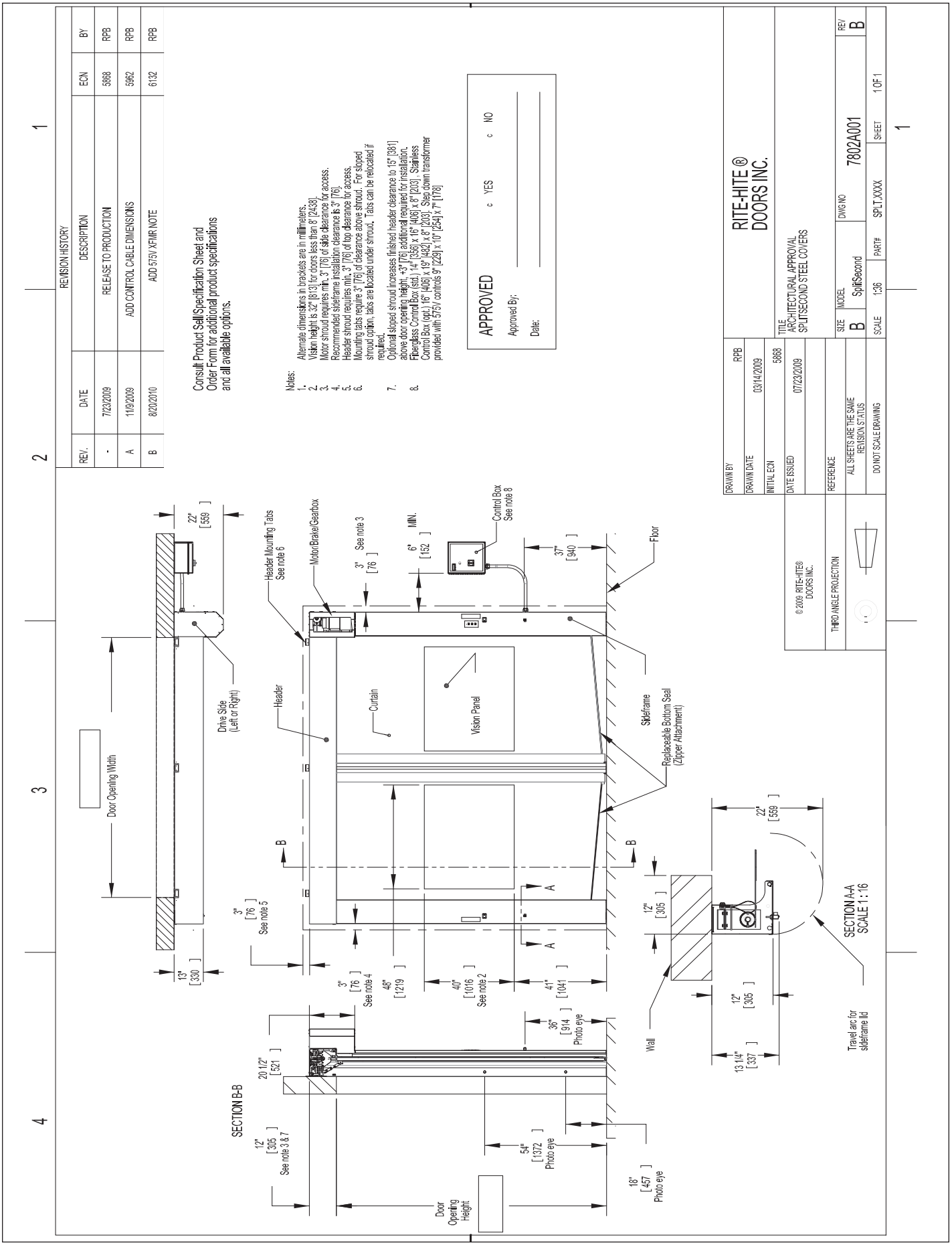
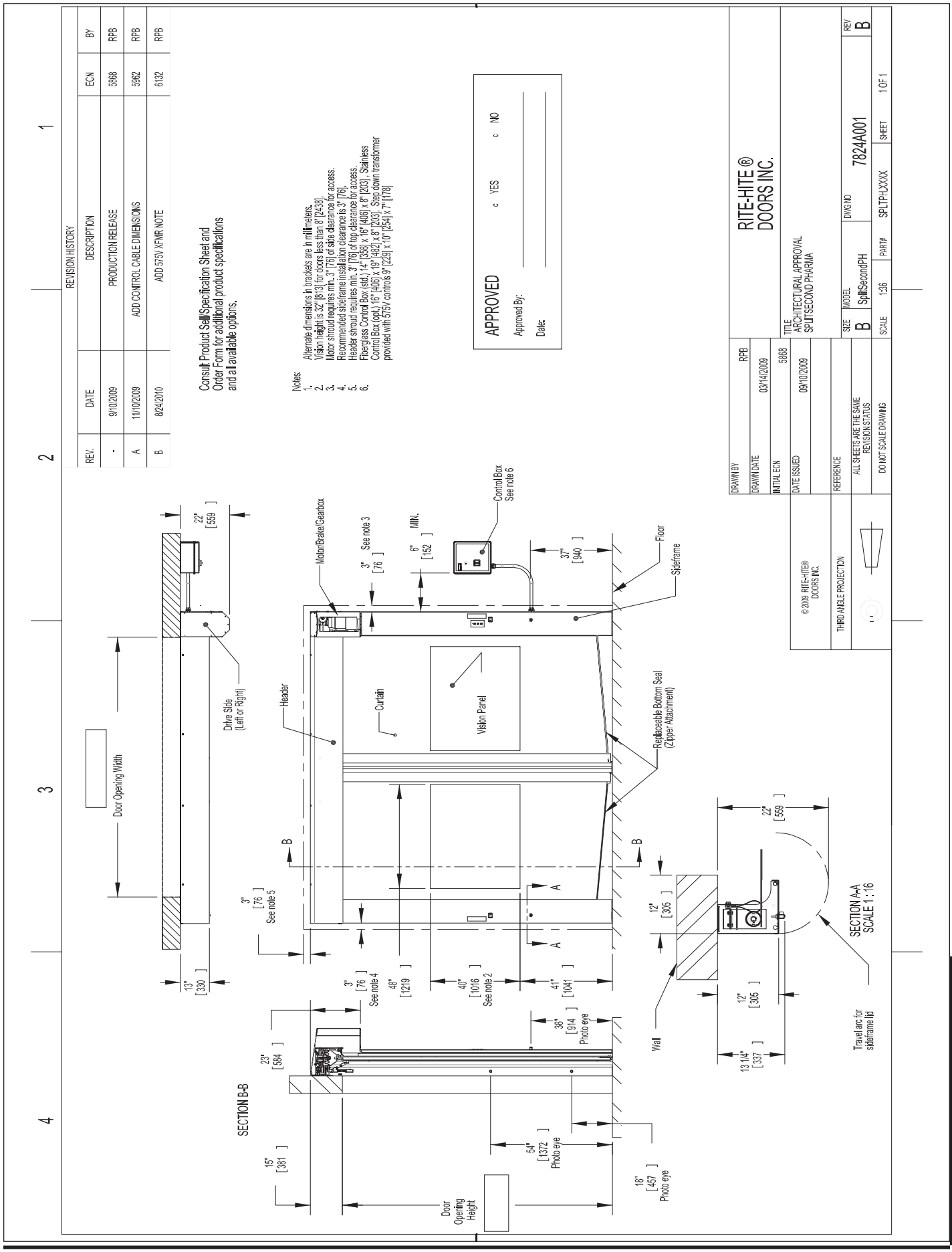
MOUNTING TAB LOCATION DRAWING



CHAPTER 7 - ARCHITECTURAL DRAWING - STEEL COVERS



CHAPTER 7 - ARCHITECTURAL DRAWING - PHARMA



CHAPTER 7 - ARCHITECTURAL DRAWING - FABRIC COVERS